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**By**

**Milton Rokeach**

*Michigan State University*

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## Psychological Monographs: General and Applied

Political and Religious Dogmatism: An Alternative to the Authoritarian Personality<sup>1</sup>

MILTON ROKEACH  
Michigan State University

## I. INTRODUCTION

THE present report is one in a series on the phenomenon of dogmatism (18, 19, 20, 21, 23). Our objectives here are twofold: (a) to present two scales, along with the theory underlying them, for measuring various aspects of dogmatism; and (b) to consider several hypotheses regarding the manner in which individual and group differences

in dogmatism are related to certain other variables, especially those relevant to present-day thinking and research on the authoritarian personality (1).

Our point of departure in attempting to isolate and measure dogmatism and to test hypotheses relating it to other variables has its roots, on the one hand, in an analysis of certain shortcomings in the formulations by Adorno *et al.* (1) regarding "the authoritarian personality"; and on the other hand, in a theoretical analysis of the properties of dogmatic thinking and believing, and the function it serves for the person. In the succeeding paragraphs we will attempt to spell out more precisely how these two sets of considerations guided both the construction of the measuring instruments and the formulation of specific hypotheses.

We have already suggested elsewhere (19) that the conceptualizations in the *The Authoritarian Personality* fall short of becoming a general theory of authoritarianism and intolerance by virtue of the fact that they had their beginnings in the study of anti-Semitism and ethnocentrism. The California researchers then constructed a personality scale which not only served as an indirect measure of ethnic prejudice but also as a measure of underlying personality predispositions toward an authoritarian outlook on life. This scale was called the

<sup>1</sup>I am greatly indebted to the Social Science Research Council for affording me half-time freedom from academic duties over a three-year period in order to carry out the research reported herein. Many persons facilitated this research in various ways. It is possible here to acknowledge my indebtedness to only a few of them. I am grateful to Drs. M. Ray Denny, Al Eglash, Irving Sigel, Henry Clay Smith, and Charles Hanley for their capacity to listen patiently and criticize undogmatically over long periods of time. I am grateful to Dr. Richard Christie of New York University, Dr. Roger W. Russell of University College, London, and Mr. R. R. Hopkins, Personnel and Welfare Manager of Vauxhall Motors in England. They all cooperated well beyond the call of duty in making subjects available to me. I wish to single out especially Miss Joan Ray of University College, London, who gave generously of her time and energy to collect the English data reported herein.

I wish to thank Dr. Cecily de Monchaux and Mr. Arthur Summerfield of University College, London, for their assistance in revising the Opinionation Scale to suit English conditions.

My greatest debt is to my wife, Muriel. More than anyone else she contributed moral support, intellectual stimulation, and original insights into the nature of dogmatic thought and belief.

F scale (F for fascism), indicating that the kind of authoritarianism which the researchers had originally in mind was of the fascist variety. It was only later—perhaps as a result of the publication of the full report of research under the title *The Authoritarian Personality*—that the personality scale referred to came to be widely known as the Authoritarianism scale (24) as well as the F scale.

It was in this way that the general concept, the authoritarian personality, became tied (measured) operationally to the F scale. Both, in turn, became intricately linked, at both theoretical and empirical levels, with anti-Semitism and ethnocentrism and, furthermore, with political-economic conservatism.

Certain consequences follow from the linkage of authoritarianism with the F scale and with anti-Semitism, ethnocentrism, and conservatism. With the more or less rough equating of the general concept of authoritarianism with but one aspect of it (fascist authoritarianism), and by virtue of its theoretical and empirical association with ethnic intolerance, it became somewhat embarrassing to point to manifestations of authoritarianism and intolerance not at all associated or even inversely associated with ethnic prejudice and conservatism.<sup>2</sup> Authoritarianism and intolerance in attitudes and in interpersonal relations can be readily observed among persons adhering to different positions along the total range of the left-to-right continuum—among those left-of-center and center, as well as among those right-of-center—and among persons adhering to different academic

orientations in the humanities, the social sciences, and the physical sciences.

The linking together in theory and research of authoritarianism with ethnic prejudice leads to yet other difficulties. It has been frequently observed that there are persons low in prejudice who are high in authoritarianism. It has also been observed that there are persons high in prejudice who are low in authoritarianism. It seems to us that a more general theory of authoritarianism (and the operational measurement thereof) should make it possible to distinguish from among persons relatively lacking in ethnic prejudice those low and those high in authoritarian character structure. Similarly, it should also be possible to distinguish by independent criteria high from low authoritarians among the ethnically prejudiced.

Another obstacle in developing a general theory of authoritarianism is the present-day social climate which leads to a preoccupation with authoritarianism on the left. In tune with the times we live in, a good deal of criticism (4, see especially Shils's chapter) has been leveled against the research by Adorno *et al.* (1), on the ground that it neglected left authoritarianism. This, to our mind, is a legitimate criticism. However, in the present research one of our major purposes is to go beyond this to develop a set of formulations, under the general concept of dogmatism, of the properties of *general* authoritarianism, which is broader than left, right, or center authoritarianism, and which, furthermore, attempts to address itself to manifestations and correlates of authoritarianism in nonpolitical, nonreligious areas as well—the academic world, for instance. In other words, it is our view that a preoccupation with left authori-

<sup>2</sup>In this connection the California researchers found it necessary to invent the concept of "the rigid low." At best this is an *ad hoc* concept, necessitating additional *ad hoc* concepts such as "rigid middles," "nonrigid highs," etc.



tarianism,<sup>3</sup> while important as such, still leaves one open to the further criticism that what has been neglected is the theoretical analysis and measurement of the properties held in common by all forms of authoritarianism, regardless of specific ideological, philosophical, or scientific content. It is to such broader issues that the theoretical analysis and measurement of dogmatism will attempt to address itself.

The problems posed above—regarding the nongeneral character of the research on the authoritarian personality—point strongly to the need to modify, or reformulate, or broaden the already-classical conceptualizations by Adorno *et al.* (1). What direction should such a reformulation take?

1. *The analysis of ideological structure.* A first requirement, it seemed to us, is the need to make a sharp distinction in theory—and to translate this distinction into empirical research—between the *structure* and *content* of ideological systems. A person may espouse a set of beliefs which are democratic in content; he may take a stand against Jim Crow; he may advocate permissiveness in parent-child relations; he may regard McCarthy as a demagogue. Yet, adherence to democratic beliefs, considered alone, cannot be taken as indicative of a non-authoritarian outlook. The structure of a belief system must also be taken into account. The problem then becomes to formulate systematically the structural properties of a person's ideology quite apart from its specific content, and in such a way that it can be measured. A successful attack on this problem would

open up a number of avenues for further investigation, not the least of which would be the broadening of theory and research on "the authoritarian personality" to extend beyond its present emphasis, which despite its emphasis on underlying personality structure, assumes ideological content as the main criterion of an antidemocratic outlook.

2. *The analysis of formal ideological content.* Closely related to the structural organization of an ideology is its *formal* content. Two persons differing widely in the content of their religious or political beliefs, for example, may be similar not only in ideological structure but also in formal content. That is, they may both adhere to the belief that there is an Absolute Authority, a True Cause, an Elite, and a Bible. We may say that they differ in specific (substantive) content but are similar in formal content.

3. *The analysis of function.* In the research on *The Authoritarian Personality* a good deal is said about the psychodynamics underlying adherence to anti-democratic beliefs fascistic in content. In the same way one can inquire into the functions underlying a particular person's ideological structure and formal content, quite apart from specific content.

With these considerations in mind we turned to the phenomenon of ideological dogmatism and to its conceptual representation and measurement. In the previous paper already referred to (19), we have formally defined dogmatism as "(a) a relatively closed cognitive organization of beliefs and disbeliefs about reality, (b) organized around a central set of beliefs about absolute authority which, in turn, (c) provide a framework for patterns of intolerance and qualified tolerance toward others" (p. 195). It is to be noted

<sup>3</sup> A major exception is the stimulating work written by Eric Hoffer (13). In several ways the goals of the present research are similar to those of Hoffer.

that according to this definition three sets of variables are subsumed under the construct of dogmatism—closed cognitive systems, general authoritarianism, and general intolerance. The first variable involves an analysis of structural properties; the latter two variables involve an analysis of formal content.

In the present monograph we will present two new scales based on this definition—The Dogmatism and Opinionation Scales. In order to show clearly the theoretical assumptions guiding their construction, it will first be necessary to review briefly various ramifications of the above definition as presented in greater detail in the earlier paper (19). This will be supplemented with several further assumptions regarding the function served by dogmatic thinking and believing, which also guided the construction of these scales. Following the presentation of these scales and the theory underlying them (Sections II and III) will be a discussion on "Procedure and Subjects" (Section IV) and a consideration of the reliability and item analysis of the Dogmatism and Opinionation Scales (Section V).

In Section VI we will present the three

major hypotheses of this study. Each one of these hypotheses will have a dual purpose: to determine the validity of different aspects of our conceptual definition of dogmatism and by contrast, the extent to which they are compatible or incompatible with the conceptualizations by Adorno *et al.* (1). To anticipate briefly: Hypothesis A is designed to demonstrate that the Dogmatism Scale represents a measure of general authoritarianism, while the F scale represents primarily a measure of right authoritarianism. Hypothesis B is designed to show that dogmatism is related to both left-of-center and right-of-center forms of intolerance, while the F and E scales are constructed in such a way that they tap only right-of-center forms of intolerance. Hypothesis C is to the effect that strong commitment to religious or political ideologies (e.g., the Catholic Church or the Communist Party), will lead to greater dogmatism and opinionation regardless of whether the commitment is left- or right-oriented. In contrast, high F and E scores will be manifest *only* in the case of right-oriented commitments, and not in the case of left-oriented commitment.

## II. THE DOGMATISM SCALE

### A. THEORETICAL CONSIDERATIONS

#### 1. *The Structure of Closed Belief-Disbelief Systems*

All cognitive systems, regardless of the extent to which they are open or closed, are conceived as being organized into two interdependent parts: a belief system and a disbelief system. The disbelief system is further conceived as being composed of several disbelief subsystems, rather than just a single one, with each such subsystem arranged along a gradient of simi-

larity to the belief system. We have called this the disbelief gradient. Consider, for example, that we are interested in exploring the ideology of a person whose belief system is Catholicism. We would want to know not only his cognitions and feelings about various aspects of Catholicism, but also his cognitions and feelings about Lutheranism, Calvinism, other Protestant denominations, Judaism, Mohammedanism, etc. Each of the preceding may be said to represent a more or less distinct disbelief subsystem and his knowledge

and beliefs about each may well differ from one to the other. It is the task of theory and research to discover the laws governing the organization of these disbelief subsystems with respect to the belief system and with respect to each other. In the earlier paper (19) we advanced a number of properties borrowed largely from Lewinian thought (15), in terms of which belief-disbelief systems are conceived to vary. And in terms of these properties relatively closed belief-disbelief systems are assumed as having a high degree of isolation (17) of the various parts within and between belief and disbelief systems; a relatively greater discrepancy in the degree of differentiation of the belief system as compared with any of the disbelief subsystems; a relatively greater degree of dedifferentiation of the various disbelief subsystems with respect to each other; a relatively greater degree of communication between centrally-located beliefs about absolute authority and peripherally-located beliefs perceived to emanate from such authority; a relatively lower degree of communication (greater isolation) among peripheral beliefs; and a relatively narrower time perspective (8, 15).

### 2. *The Formal Content of Closed Belief-Disbelief Systems*

We have further assumed that in relatively closed belief-disbelief systems the central core or region has to do with beliefs in absolute authority (both positive and negative) and with related beliefs about "the elite," "the cause," etc. The specific content of such beliefs will, of course, vary with the particular belief-disbelief system adhered to.

A further point is that, coordinated with absolute beliefs in positive and

negative authority, are attitudes of intolerance or qualified tolerance toward people in general, depending upon which authorities and belief systems one lines up with, and depending upon which disbelief system one is arrayed against. A major cognitive manifestation of this intolerance is found in the employment of opinionated language (e.g. "Only a simple-minded fool would think that . . .," "Any intelligent person can plainly see that. . .")

### 3. *The Function of Closed Belief-Disbelief Systems*

In the earlier paper (19) we have considered only the structure and formal content of dogmatic thinking and believing. In building our Dogmatism scale, however, it was considered desirable to represent also certain cognitive manifestations of the dynamic aspects of dogmatism.

It is assumed that, whether we are concerned with institutional or individual dogmatism, it represents a total ideological defense against threat and at the same time a cognitive framework for satisfying one's need to know and to comprehend the world one lives in (16). In other words, dogmatic thinking and believing make it possible to ward off threatening aspects of reality and at the same time give one the satisfaction of feeling that one understands it. At the institutional level the threat, whether internal or external, is to the continued existence of the institution and to the belief-disbelief system it stands for. At the individual level the threat arises out of adverse experiences of the person which are shaped by and which, in turn, shape broader social conditions. To varying degrees individuals and groups will become disposed to accept closed systems

of thinking and believing in proportion to the extent to which they are made to feel alone or isolated in the world they live in (9), and thus fearfully anxious of what the future holds in store for them. Such a state of affairs leads to pervasive feelings of inadequacy and to self-hate. Attempts are made to overcome such feelings by becoming excessively concerned with a need for power and status. And along with such an overconcern are compensatory attitudes of egotism on the one hand and misanthropy (25) on the other. These, in turn, lead to feelings of guilt and a generally disaffected outlook on life. Such, then, is the constellation of conditions which is conceived to make the individual or group prone to dogmatism. For by overidentification with absolute authority and a cause, an attempt is made to defend self or group against feelings of aloneness and isolation, self-hate and misanthropy. At the same time the closed belief-disbelief system provides a systematic cognitive framework for rationalizing and justifying morally egocentric attitudes toward the self and rejecting attitudes toward others. Thus, the more dogmatic the belief-disbelief system the more does it represent in its totality a tightly-woven network of cognitive defenses against anxiety. Such psychoanalytic defense mechanisms as rationalization, denial, projection, reaction formation, and identification are all seen to have their representation at the cognitive level (as surely they must) in the belief-disbelief system.

#### B. CONSTRUCTION OF THE DOGMATISM SCALE

In constructing the Dogmatism scale it was necessary to assume that the scale would be employed as a research tool primarily in countries where at the very least the word "democracy," whatever it may mean to different individuals or groups, has positive valence. Within this

rather broad framework our aim was to devise a measuring instrument generally devoid of content specific to any particular ideological orientation, or having content broad enough so that it was clearly relevant to divergent ideological orientations. This meant that the scale had to be so constructed that individuals adhering dogmatically to such diverse viewpoints as capitalism, communism, Judaism, Catholicism, etc., would all score at one end of the continuum, and opposite in direction to others relatively low in dogmatism.

It is necessary to draw attention further to the fact that the development of the Dogmatism and Opinionation scales and the testing of hypotheses regarding the relation of these scales to other variables proceeded simultaneously. In all a total of 89 items was employed in the initial scale and in four successive revisions covering various facets of the structure, formal content, and function of dogmatism. The several revisions were aimed to increase reliability and to take advantage of modifications and increasing refinements (over a two-year period) in our theoretical formulation of the construct of dogmatism. The initial scale contained 57 items, and three successive editions contained 43, 36, and 66 items, respectively. The fifth and final edition is composed of the best 40 items taken from the preceding 66-item scale, all items significantly differentiating between high and low dogmatism quarters, as determined by item analysis. For the sake of brevity we will present here Form D, composed of 66 items, along with the theoretical considerations guiding its construction.<sup>4</sup> An

<sup>4</sup>Most of the items in the Dogmatism scale were constructed by the present writer. A few of the items were taken from the work of others, with or without modification. Item 53 was taken from Hoffer (13); Items 46 and 56 from Berger (2); Items 51, 55, 59, 63, 65, and 66 from the MMPI (12).

asterisk preceding the item means that it was retained in the final 40-item scale, Form E.

*1. Items Based Upon the Cognitive Structure of Dogmatism*

*a. Isolation within and between belief and disbelief systems.* Isolation refers to degree of segregation or lack of intercommunication between neighboring regions or subregions. It is assumed that the greater the dogmatism the greater the isolation between and within belief and disbelief systems. Cognitive manifestations of isolation and the items they suggested are presented below.

*i. Accentuation of differences (or minimization of similarities) between belief and disbelief systems.*

- \*1. The United States and Russia have just about nothing in common.
- 2. Communism and Catholicism have nothing in common.
- 3. The principles I have come to believe in are quite different from those believed in by most people.

*ii. The perception of irrelevance.*

- 4. In a heated discussion people have a way of bringing up irrelevant issues rather than sticking to the main issue.

*iii. The coexistence of contradictions within the belief system.*

- \*5. The highest form of government is a democracy and the highest form of a democracy is a government run by those who are most intelligent.
- \*6. Even though freedom of speech for all groups is a worthwhile goal, it is unfortunately necessary to restrict the freedom of certain political groups.
- 7. While the use of force is wrong by and large, it is sometimes the only way possible to advance a noble ideal.
- 8. Even though I have a lot of faith in the intelligence and wisdom of the common man I must say that the masses behave very stupidly at times.

*b. The disbelief gradient.* The disbelief gradient is conceived as being composed of a series of disbelief subsystems each arranged along a gradient of similarity to the belief system. Persons adhering to disbelief subsystems most similar to one's own belief system—factional or renegade

subsystems—are likely to be in greater conflictful contact with each other and hence are most likely to be perceived as threatening to the validity of the belief system. We assume that this will become increasingly the case the greater the dogmatism.

- \*9. The worst crime a person could commit is to attack publicly the people who believe in the same thing he does.

- \*10. In times like these it is often necessary to be more on guard against ideas put out by people or groups in one's own camp than by those in the opposing camp.

- \*11. A group which tolerates too much differences of opinion among its own members cannot exist for long.

*c. Relative degrees of differentiation of belief and disbelief systems.* The belief system is assumed to be generally more differentiated than the disbelief system. It is assumed further that with an increase in dogmatism there will be an increasing discrepancy in the degree of differentiation between belief and disbelief systems. Furthermore, the greater the dogmatism, the less differentiation of disbelief subsystems with respect to each other; that is, different disbelief subsystems will be perceived as "the same."

*i. Relative amount of knowledge possessed.*

- \*12. It is only natural that a person would have a much better acquaintance with ideas he believes in than with ideas he opposes.

*ii. Dedifferentiation within the disbelief system.*

- 13. There are certain "isms" which are really the same even though those who believe in these "isms" try to tell you they are different.

*d. Relation between central and peripheral parts.* The more closed the belief-disbelief system the more is the central part assumed to correspond to beliefs in and about absolute authority, and the peripheral part to beliefs perceived to emanate from such authority. Thus, a change in a particular peripheral belief is determined by a prior



change in the central part. Also the central part is assumed to determine not only what will be represented in the belief-disbelief system but also what will not be represented, that is, narrowed out (16).

i. *Tendency to make a party-line change*, referring to a change in peripheral beliefs following a change in central beliefs.

\*14. In this complicated world of ours the only way we can know what's going on is to rely on leaders or experts who can be trusted.

\*15. It is often desirable to reserve judgment about what's going on until one has had a chance to hear the opinions of those one respects.

ii. *Narrowing*, referring to the selective avoidance of contact with facts, events, etc., incongruent with the belief-disbelief system.

\*16. In the long run the best way to live is to pick friends and associates whose tastes and beliefs are the same as one's own.

17. There's no use wasting your money on newspapers which you know in advance is just plain propaganda.

18. Young people should not have too easy access to books which are likely to confuse them.

e. *Time perspective*. Another dimension along which belief-disbelief systems are conceived to vary is time perspective (8, 15). It is assumed that the more closed the system, the more will its organization be future- or past-oriented, and the more will the present be rejected as important in its own right. Manifestations of such a time perspective are to be found in one's attitude toward past, present, and future, in the extent to which one feels able to appraise accurately or to understand the future, and in one's attitude toward force as a way of revising the present.

i. *Attitude toward past, present, and future*

\*19. The present is all too often full of unhappiness. It is only the future that counts.

20. It is by returning to our glorious and forgotten past that real social progress can be achieved.

21. To achieve the happiness of mankind in the future it is sometimes necessary to put up with injustices in the present.

ii. *Knowing the future*

\*22. If a man is to accomplish his mission in life it is sometimes necessary to gamble "all or nothing at all."

\*23. Unfortunately, a good many people with whom I have discussed important social and moral problems don't really understand what's going on.

\*24. Most people just don't know what's good for them.

25. There is nothing new under the sun.

26. To one who really takes the trouble to understand the world he lives in, it's an easy matter to predict future events.

iii. *Belief in force as a way of revising the present*

27. It is sometimes necessary to resort to force to advance an ideal one strongly believes in.

## 2. *Items Based Upon the Formal Cognitive Content of Dogmatism*

Quite aside from specific ideological content there are assumed to be certain uniformities in the formal content of centrally-located beliefs about the nature of authority and the nature of people in general. With an increase in dogmatism we assume an increase in the absoluteness of beliefs in positive and negative authority, and an increasing rejection or acceptance of people depending upon whether they agree or disagree with one's belief-disbelief system.

a. *Authoritarianism*

i. *Beliefs in positive and negative authority*

\*28. In the history of mankind there have probably been just a handful of really great thinkers.

\*29. There are a number of people I have come to hate because of the things they stand for.

ii. *Belief in the cause*

\*30. A man who does not believe in some great cause has not really lived.

\*31. It is only when a person devotes himself to an ideal or cause that life becomes meaningful.

\*32. Of all the different philosophies which exist in this world there is probably only one which is correct.

\*33. A person who gets enthusiastic about

too many causes is likely to be a pretty "wishy-washy" sort of person.

- \*34. To compromise with our political opponents is dangerous because it usually leads to the betrayal of our own side.
- \*35. When it comes to differences of opinion in religion we must be careful not to compromise with those who believe differently from the way we do.
- \*36. In times like these, a person must be pretty selfish if he considers primarily his own happiness.
- 37. To compromise with our political opponents is to be guilty of appeasement.

#### b. Intolerance

- \*38. There are two kinds of people in this world: those who are for the truth and those who are against the truth.
- \*39. My blood boils whenever a person stubbornly refuses to admit he's wrong.
- \*40. A person who thinks primarily of his own happiness is beneath contempt.
- \*41. Most of the ideas which get printed nowadays aren't worth the paper they are printed on.
- 42. I sometimes have a tendency to be too critical of the ideas of others.

### 3. Items Based Upon the Function of Dogmatism

We have already set forth what we consider to be some of the variables having to do with the dynamics underlying dogmatic adherence to any ideology: feelings of aloneness and isolation, anxiety over the future, self-hate, compensatory needs for self-aggrandizement, and a generally paranoid outlook on life. Each of these variables suggested items which appeared to be relevant to the measurement of ideological dogmatism.

#### a. Fear of aloneness, isolation, and helplessness

- \*43. Man on his own is a helpless and miserable creature.
- \*44. Fundamentally, the world we live in is a pretty lonesome place.
- \*45. Most people just don't give a "damn" for others.
- \*46. I'd like it if I could find someone who would tell me how to solve my personal problems.

#### b. Anxiety about the future

##### i. Fear of the future

- \*47. It is only natural for a person to be rather fearful of the future.

##### ii. A feeling of urgency<sup>5</sup>

- \*48. There is so much to be done and so little time to do it in.

##### iii. Compulsive repetition of ideas and arguments (self-proselytization).

- \*49. Once I get wound up in a heated discussion I just can't stop.
- \*50. In a discussion I often find it necessary to repeat myself several times to make sure I am being understood.
- \*51. In a heated discussion I generally become so absorbed in what I am going to say that I forget to listen to what the others are saying.

- 52. In a discussion I sometimes interrupt others too much in my eagerness to put across my own point of view.

#### c. Self-hate

##### i. Need for martyrdom

- \*53. It is better to be a dead hero than to be a live coward.<sup>6</sup>

##### ii. Conflict within the self.

- 54. My hardest battles are with myself.

##### iii. Self-deprecation.

- 55. At times I think I am no good at all.
- 56. I am afraid of people who want to find out what I'm really like for fear they'd be disappointed in me.

#### d. Need for self-aggrandizement

##### i. Concern with power and status

- \*57. While I don't like to admit this even to myself, my secret ambition is to become a great man, like Einstein or Beethoven, or Shakespeare.
- \*58. The main thing in life is for a person to want to do something important.
- \*59. If given the chance I would do something of great benefit to the world.
- 60. If I had to choose between happiness and greatness, I'd choose greatness.

##### ii. Moral self-righteousness

- 61. It's all too true that people just won't practice what they preach.

#### e. Paranoid outlook on life

- 62. Most people are failures and it is the system which is responsible for this.

<sup>5</sup> We are indebted to Hoffer (13) for this idea.

<sup>6</sup> In the earlier forms we employed the item, obtained from Hoffer (13), "It is better to be a dead lion than to be a live dog." This item turned out to be highly significant in Form A but not in Form B.

63. I have often felt that strangers were looking at me critically.  
 64. It is only natural for a person to have a guilty conscience.

65. People say insulting and vulgar things about me.  
 66. I am sure I am being talked about.

### III. THE OPINIONATION SCALE

It has already been pointed out in the Introduction that dogmatism is defined not only as a closed cognitive structure of beliefs and disbeliefs organized around a set of centrally-located beliefs about authority, but also as a framework for organizing attitudes of intolerance and qualified tolerance toward people in general according to the beliefs they accept or reject. We have also pointed out that the best single behavioral manifestation of such attitudes of intolerance and qualified tolerance seems to be the employment of opinionated language. *Opinionated rejection* refers to the making of a statement which involves the rejection of a belief and at the same time the rejection of persons accepting this belief. Consider, for example, the following statement: "Only a simple-minded fool would say that God exists." Agreement with this statement implies: (a) that the person rejects belief in God and (b) that he rejects those who accept belief in God: they are "simple-minded fools."

Half of the items which went into the Opinionation scale are of this type. The principle of construction of such items was simply to link a variety of "opinionated rejection" phrases with a variety of beliefs: about God, socialized medicine, Franco, capitalism, communism, etc.

The remaining half of the items composing the Opinionation scale involve *opinionated acceptance*. This refers to the acceptance of a belief, and along with this the qualified acceptance of persons on condition that and as long as they accept this belief. The following example exemplifies what we have in mind: "Any

intelligent person will tell you that God exists." This assertion, too, yields two bits of information: (a) the person accepts belief in God and (b) he accepts those who agree with him as "intelligent." We say that the acceptance of persons agreeing with the belief is *qualified* because there is the implication that at the moment there is a change of heart the person is no longer considered to be "intelligent."

There is an even more important consideration which guided the construction of the Opinionation scale. On theoretical grounds opinionation should be closely related to dogmatism, and hence a scale for measuring opinionation, as is also the case with dogmatism, should be independent of specific ideological content. To build an opinionation scale without ideological content is obviously impossible. But it is possible to construct a scale having political and religious content so that different ideological positions are more or less equally represented. Accordingly, half of the items were constructed in such a way so that agreement would be indicative of *left opinionation*, while agreement with the remaining half would be indicative of *right opinionation*. "Left" and "right" were defined *not* in terms of beliefs typical of extreme leftist or rightist orientations, but rather in terms of beliefs which could be clearly categorized as "left-of-center" or "right-of-center."

As was the case with the Dogmatism scale, the Opinionation scale also went through several revisions. In all revisions, the scale had the following design: half of

the items were *left-opinionation* items, the remaining half *right-opinionation* items.<sup>7</sup> Each of these, in turn, was composed equally of *opinionated acceptance* items and *opinionated rejection* items. This design make it possible to obtain six different scores, as follows:<sup>8</sup>

1. Total Opinionation (Left Opinionation plus Right Opinionation)
2. Left Opinionation
3. Right Opinionation
4. Opinionated Rejection
5. Opinionated Acceptance
6. Liberalism-Conservatism (Right Opinionation minus Left Opinionation, low [negative]

<sup>7</sup>To obtain an independent check on whether the items constructed were indeed left or right in direction we asked Drs. Alfred Dietze and Donald M. Johnson to judge each item as to whether it is "left-of-center" or "right-of-center." The agreement of these judgments with the writer's was 100 per cent.

<sup>8</sup>In the interest of brevity we will omit the correlational data on opinionated rejection and opinionated acceptance (scores 4 and 5). Each of these two subscales correlates in the .80's with total opinionation; each correlates about equally highly with other variables. Thus, these two subscales appear to be equivalent halves of the total Opinionation Scale.

#### IV. PROCEDURE AND SUBJECTS

The items of the Dogmatism and Opinionation scales were interspersed among items from the several other scales which were also administered. These included the F, E, P.E.C. scales (1) and the Anxiety scale (26). Moreover, to certain groups, the Rigidity (11) and Intellectual Conviction (20) scales were also given.<sup>9</sup> The instructions were the same as those employed in the original research on the authoritarian personality. Also, as in the

previous research, low [negative] scores indicating liberalism, and high [positive] scores indicating conservatism.

In Table 1 we present the final form of the Opinionation scale, employed in the United States, the 40-item Form C. To be noted is the fourfold classification of items in terms of left and right opinionations, and opinionated acceptance and rejection. To be noted too is the variety of opinionated phrases employed, and the large variety of political and religious issues sampled: Roosevelt, Truman, Hoover, McCarthy, MacArthur, Churchill, Eisenhower, Chiang Kai-Shek, the Rosenbergs, Alger Hiss, Russia, the United States, Spain, China, the United Nations, communism, socialism, capitalism, God, religion, socialized medicine, the Democrats, civil rights, loyalty oaths, congressional committees, the American Legion, labor, race, housing, and military training.

Form C differs from Form C<sub>E</sub> (used in England) and from the earlier Forms A and B in certain important respects. This can be discussed more profitably later, in connection with the presentation of the reliability data.

earlier research, Ss were asked to indicate disagreement or agreement on a scale from -3 to +3, with the 0 point excluded in order to force responses toward disagreement or agreement. This scale was subsequently converted, for scoring purposes, to a 1 to 7 scale by adding a constant of 4 to each item score. The questionnaires were administered to various groups from about 10 to 50 under anonymous conditions, either in regular class periods or at other scheduled times. The questionnaires contained, for different groups, from 175 to 200 items and it took anywhere from half an hour to an

<sup>9</sup>Data bearing on anxiety, rigidity, and intellectual conviction are treated elsewhere (20, 21, 23).

TABLE 1  
THE OPINIONATION SCALE

Left Opinionation	Right Opinionation
Opinionated Rejection	
<ol style="list-style-type: none"> <li>1. It's just plain stupid to say that it was Franklin Roosevelt who got us into the war.</li> <li>2. A person must be pretty stupid if he still believes in differences between the races.</li> <li>3. There are two kinds of people who fought Truman's Fair Deal program: the selfish and the stupid.</li> <li>4. A person must be pretty short-sighted if he believes that college professors should be forced to take special loyalty oaths.</li> <li>5. It's the people who believe everything they read in the papers who are convinced that Russia is pursuing a ruthless policy of imperialist aggression.</li> <li>6. It's mainly those who believe the propaganda put out by the real-estate interests who are against a federal slum clearance program.</li> <li>7. A person must be pretty gullible if he really believes that the Communists have actually infiltrated into government or education.</li> <li>8. It's mostly those who are itching for a fight who want a universal military training law.</li> <li>9. It is very foolish to advocate government support of religion.</li> <li>10. Only a simple-minded fool would think that Senator McCarthy is a defender of American democracy.</li> </ol>	<ol style="list-style-type: none"> <li>21. It's simply incredible that anyone should believe that socialized medicine will actually help solve our health problems.</li> <li>22. A person must be pretty ignorant if he thinks that Eisenhower is going to let the "big boys" run this country.</li> <li>23. It's the fellow travellers or Reds who keep yelling all the time about Civil Rights.</li> <li>24. It's the radicals and labor racketeers who yell the loudest about labor's right to strike.</li> <li>25. It is foolish to think that the Democratic Party is really the party of the common man.</li> <li>26. You just can't help but feel sorry for the person who believes that the world could exist without a Creator.</li> <li>27. It's usually the trouble-makers who talk about government ownership of public utilities.</li> <li>28. Only a misguided idealist would believe that the United States is an imperialist warmonger.</li> <li>29. It's mostly the noisy liberals who try to tell us that we will be better off under socialism.</li> <li>30. It's the agitators and left-wingers who are trying to get Red China into the United Nations.</li> </ol>
Opinionated Acceptance	
<ol style="list-style-type: none"> <li>11. It's perfectly clear that the decision to execute the Rosenbergs has done us more harm than good.</li> <li>12. Any person with even a brain in his head knows that it would be dangerous to let our country be run by men like General MacArthur.</li> <li>13. The truth of the matter is this! It is big business which wants to continue the cold war.</li> <li>14. Make no mistake about it! The best way to achieve security is for the government to guarantee jobs for all.</li> <li>15. It's perfectly clear to all decent Americans that Congressional Committees which investigate communism do more harm than good.</li> <li>16. Thoughtful persons know that the American Legion is not really interested in democracy.</li> <li>17. It's perfectly clear to all thinking persons that the way to solve our financial problems is by a soak-the-rich tax program.</li> <li>18. It's all too true that the rich are getting richer and the poor are getting poorer.</li> <li>19. History clearly shows that it is the private enterprise system which is at the root of depressions and wars.</li> <li>20. Anyone who's old enough to remember the Hoover days will tell you that it's a lucky thing Hoover was never re-elected.</li> </ol>	<ol style="list-style-type: none"> <li>31. Any intelligent person can plainly see that the real reason America is rearming is to stop aggression.</li> <li>32. Plain common sense tells you that prejudice can be removed by education, not legislation.</li> <li>33. Anyone who is really for democracy knows very well that the only way for America to head off revolution and civil war in backward countries is to send military aid.</li> <li>34. History will clearly show that Churchill's victory over the Labour Party in 1951 was a step forward for the British people.</li> <li>35. The American re-armament program is clear and positive proof that we are willing to sacrifice to preserve our freedom.</li> <li>36. This much is certain! The only way to defeat tyranny in China is to support Chiang Kai-Shek.</li> <li>37. It's already crystal-clear that the United Nations is a failure.</li> <li>38. A study of American history clearly shows that it is the American businessman who has contributed most to our society.</li> <li>39. Even a person of average intelligence knows that to defend ourselves against aggression we should welcome all help—including Franco Spain.</li> <li>40. Anyone who knows what's going on will tell you that Alger Hiss was a traitor who betrayed his country.</li> </ol>



hour and a half for completion. Other information, including age, sex, race, religion, political affiliation, and income, was also obtained.

The Ss were obtained from three areas differing in political climate: the Midwest, New York, and England. In the Midwest the Ss were college students at Michigan State University taking courses in beginning psychology (M.S.U. I, II, and III). They were tested during the regular class period. In New York, Ss were also beginning psychology students obtained from two colleges in Metropolitan New York and were also tested during regular class periods (N.Y. Colleges). In England, the writer obtained college samples from University College, London, and Birkbeck College, and a worker sample from a British automobile factory (Vauxhall Motors). The college sample was composed of first-year psychology students recruited from psychology classes and also of individually-recruited volunteers from the college at large (English Colleges I and II). They were tested in small groups from 10 to 15. The worker group (English Workers) was composed of 15 out of 20 workers elected

to the Management Advisory Committee (representing 14,000 workers) and 45 more who were individually solicited by the members on this committee. The number of Ss obtained from all sources, both in the United States and in England, is shown in Table 2.

In view of the fact that the California E scale—we employed the 10-item E scale (1, p. 128)—contains items about Jews and Negroes, questionnaires obtained from Jews and Negroes were eliminated from consideration in the M.S.U. groups. In the New York study we employed a revised 10-item E scale, taken from the longer scale employed in the California research, in which none of the items referred to Jews. By virtue of the fact that Negro items were included, we eliminated Negro Ss in analyzing these results. In England yet other revisions were necessary. Three E items (1, Items 5, 10, 15 on p. 128) were not relevant and other items were substituted. Also, the word *Britain* was substituted for *America* in the last E item. Jewish Ss were retained, but all data involving the E scale were analyzed with the Jews omitted from consideration.

## V. RELIABILITY AND ITEM ANALYSES OF THE DOGMATISM AND OPINIONATION SCALES

### A. THE DOGMATISM SCALE

We have already pointed out that the Dogmatism scale went through a number of revisions. These revisions were made in order to increase reliability and also to reflect the many modifications, elaborations, and refinements which took place in our thinking over a period of two years regarding the nature and meaning of dogmatism. Thus in the various revisions we found it necessary to eliminate certain items, reword some, and add new ones.

Along with the construction of the Dogmatism scale we kept an eye out for its validity. Our approach to the problem of validity was first to analyze certain implications of our conceptualization of dogmatism, translate these implications into hypotheses regarding the way in which dogmatism should be related to other variables, and then to test these hypotheses empirically. The hypotheses and results found will be considered in Sections VI to X.

We will be concerned here with the

TABLE 2  
CORRECTED RELIABILITY OF SUCCESSIVE FORMS OF THE DOGMATISM SCALE

Form	Number of Items	Group	N	Reliability	M	SD
A	57	M.S.U. I	202	.70	182.50	26.20
B	43	N.Y. Colleges	207	.75	141.35	27.21
C	36	(N.Y. Colleges	207	.84)*	120.00	19.46
		M.S.U. II	153	.73	126.92	20.14
		M.S.U. III	186	.71	128.34	19.17
D	66	English Colleges I	137	.91	219.10	28.30
E	40	English Colleges II	80	.81	152.80	26.20
		English Workers	60	.78	175.80	26.00

\* Based upon a rescoring of the 36 best items out of the 43 items in Form B.

problem of reliability. In Table 2 we show the odd-even reliabilities, corrected by the Spearman-Brown formula, not only for the 66-item Form D but for all forms. Also shown are the number of items in each form, the groups to which each form was administered, number of cases, means and sigmas.

The initial Form A was composed of 57 items and its corrected reliability was .70. Following an item analysis we eliminated 14 items and used Form B, composed of 43 items. Its corrected reliability was .75. A second item analysis led to Form C, which was essentially the same as Form B except that the 7 items with the poorest discriminatory power were further eliminated. Form C, however, yielded reliabilities somewhat lower than we had expected ( $r = .73$  and  $.71$ ), and in the next revision (Form D) we added 30 new items, making a total of 66 items. The corrected reliability of the 66-item Form D was .91. To shorten the scale, we eliminated 26 items on the basis of a third item analysis. This 40-item scale, Form E, was found to have a corrected reliability of .81 for the English College II sample and .78 for the English Worker sample.

The means and sigmas shown in Table 2 are presented primarily for normative purposes. In general, the means for the various groups are not comparable, primarily because the number of items differ for the various forms. One exception is M.S.U. II vs. III, both tested with Form C. It is seen that the means and sigmas for M.S.U. II and III are almost identical. A second exception is English Colleges II vs. English Workers, both tested with Form E. The mean dogmatism score for the English Workers is considerably larger than that for the English Colleges II group, the difference being significant well beyond the one per cent level. It is not possible to say whether this means that the English workers are more dogmatic than English college students or whether the difference is a function of the fact that workers, having considerably less education, agree more often with statements presented to them. The writer is inclined more toward the latter interpretation.

We show in Table 3, for each of the 66 items of Form D, its mean and standard deviation, as well as means and standard deviations, differences in means, and  $t$  ratios for the high and low dogmatism

quarters (upper and lower 27 per cent). As indicated earlier in Section II an asterisk preceding the item means that it went to make up the final 40-item scale, Form E. Also shown, are the *t* ratios for the high and low dogmatism groups for 36 of the 66 items, which had been employed previously in Forms A and B.

To be noted first are the items found to be most discriminating. Considering those items which were employed in the several forms, there were four which yielded an average *t* of 5.00 or more. These are Item 31 (Life meaningful only when there is devotion to cause), Item 43 (Man on his own is helpless and miserable), Item 46 (Want to find someone to solve personal problems), and Item 63 (Strangers look at me critically).

Items employed for the first time in Form D, which yielded a *t* of 6.00 or more, are: Item 38 (2 kinds of people: for truth, against truth), Item 47 (Natural to fear future), and Item 16 (Pick friends whose tastes and beliefs are same as one's own).

Furthermore, we single out the following as also being among the most discriminating (*t* of 5.00 or more for items in Form D only; *t* of 4.00 or more for items used in the several forms):

9. Worst crime is to attack those of similar beliefs.
10. Be more on guard against subversion from within than from without.
11. Groups tolerating diverse opinions cannot exist for long.
14. To know what's going on, rely on trusted leaders.
23. Most people don't understand what's going on.
28. In all history there is just a handful of really great thinkers.
39. My blood boils when others won't admit they're wrong.
59. If given chance I'd benefit world.
65. People say insulting things about me.

A word about the final Dogmatism scale, Form E: it will be noted that 21

out of the 40 items of Form E came from among the 30 items employed for the first time in Form D, while 19 came from earlier forms. There were several criteria which served as bases for selection: (a) Items employed for the first time in Form D were eliminated if they discriminated relatively poorly. (b) Items employed in the several forms were eliminated if they did not discriminate consistently well. (c) The final scale should have approximately equal numbers of items having to do with the structure, the formal content, and the function of dogmatism. (d) It should have maximum theoretical coverage. (e) Finally, it was our judgment that, quite aside from the issue of external validity, each of the scale items should have "face validity," that is, its content should be directly relevant to our conceptual definition of dogmatism. This necessitated excluding several statistically excellent items (see especially Items 63 and 65) from the final scale which, in our judgment, did not have such "face validity."

#### B. THE OPINIONATION SCALE

In Table 4 we show the corrected reliabilities of the successive forms of the total Opinionation scale, the left- and right-opinionation subscales, and the derived liberalism-conservatism score, obtained by subtracting the left-opinionation score from the right-opinionation score.

Form A, the initial form, was composed of 40 items, broken down into 20 pairs of statements. Each pair was composed of a left-opinionated statement and an oppositely-worded right-opinionated statement. Five pairs were presented together on a single page to S, and in all there were four such pages interspersed among other pages containing items measuring other variables. In responding

TABLE 3  
ITEM ANALYSIS OF THE DOGMATISM SCALE, FORM D

Items	Total Group (N = 137)		Highs (N = 37)		Lows (N = 37)		Diff.	t <sup>a</sup>	Form A t	Form B t
	M	σ	M	σ	M	σ				
A. Based upon the structure of dogmatism.										
*1. U.S. and Russia have nothing in common.	2.88	1.77	3.43	1.94	2.16	1.44	1.27	3.19	2.36	3.88
2. Communism & Catholicism have nothing in common.	3.54	2.06	4.32	2.17	2.68	1.72	1.64	3.61	3.84	1.50
3. My principles are different from most others.	3.51	1.97	3.79	1.90	3.14	1.88	.56	N.S.	— <sup>b</sup>	—
*4. People bring up irrelevant issues.	5.99	1.39	6.46	.64	5.81	1.43	.65	N.S.	—	—
*5. Belief in democracy run by most intelligent.	4.72	2.03	5.60	1.93	3.92	2.15	1.68	3.54	—	—
*6. Belief in free speech, but not for all.	4.16	2.08	5.11	2.02	3.27	1.85	1.84	4.06	—	—
7. Force is wrong, but sometimes necessary.	3.80	2.06	4.54	2.03	3.51	2.11	1.03	2.14	—	—
8. Masses intelligent, but also stupid.	5.64	1.48	6.11	1.03	5.00	1.86	1.11	3.18	—	—
*9. Worst crime is to attack those of similar beliefs.	2.74	1.69	3.30	1.87	1.76	.84	1.54	4.57	4.37	5.46
*10. Guard against subversion from within.	3.96	1.78	4.78	1.49	2.81	1.62	1.97	5.44	—	—
*11. Groups tolerating diverse opinions can't exist.	3.35	2.01	4.32	1.93	2.19	1.57	2.13	5.22	—	—
*12. Better knowledge of beliefs than disbeliefs.	4.99	1.82	5.65	1.47	4.14	2.10	1.51	3.58	—	—
13. Certain "isms" really the same, not different.	4.59	2.01	5.19	1.78	4.08	2.13	1.11	2.42	—	—
*14. To know what's going on, rely on leaders.	3.80	2.14	5.46	1.61	3.08	1.96	2.38	5.68	—	—
*15. Reserve judgment until you hear leader's opinion.	5.20	1.93	5.70	1.43	4.32	1.92	1.38	3.51	—	—
*16. Pick friends who believe as you do.	3.98	1.98	5.08	1.70	2.68	1.72	2.40	6.04	—	—
17. Don't waste money on reading opposing views.	3.42	1.94	3.76	2.00	2.97	1.86	.79	N.S.	—	—
18. Keep young people away from confusing books.	3.02	1.54	3.65	2.29	2.76	1.90	.89	N.S.	—	—
*19. Present unhappy. The future is what counts.	3.15	1.90	3.81	1.86	2.35	1.51	1.46	3.71	4.58	5.82
20. To progress, return to glorious past.	1.58	.98	1.73	.94	1.38	.67	.35	N.S.	5.23	4.35
21. For happiness in future, present injustice necessary.	4.57	1.75	5.35	1.48	4.22	1.89	1.13	2.87	1.67	4.08
*22. To accomplish mission, gamble all or nothing.	5.04	1.82	5.84	1.35	4.35	1.93	1.49	3.41	2.10	5.46
*23. Most people don't understand what's going on.	4.70	1.77	5.43	1.46	3.51	1.84	1.92	4.97	4.47	5.29
*24. Most people don't know what's good for them.	4.10	2.12	5.16	1.82	2.81	2.22	2.35	4.07	—	—
25. Nothing new under the sun.	3.12	2.12	3.81	2.30	2.38	1.81	1.43	2.98	5.22	2.81
26. If you understand, it's easy to predict future.	2.72	1.78	3.19	2.00	2.27	1.59	.92	2.10	3.13	3.21
27. Force necessary to advance ideal.	3.71	2.00	4.43	1.99	3.11	2.05	1.32	2.81	4.81	4.86
B. Based upon formal content of dogmatism.										
*28. Just a handful of great thinkers.	4.85	2.05	5.87	1.53	3.60	2.03	2.27	5.42	—	—
*29. I hate some people because of what they stand for.	3.07	2.14	3.35	2.21	1.95	1.80	1.40	3.00	—	—
*30. A man without a cause hasn't lived.	4.52	2.00	5.51	1.74	3.27	1.99	2.24	5.12	5.57	3.88
*31. Life meaningful when there is devotion to cause.	5.34	1.66	6.14	.80	4.19	2.00	1.95	5.42	2.70	8.60
*32. There is only one correct philosophy.	2.66	2.23	4.11	2.54	1.97	1.70	2.14	4.24	—	—
*33. Person believing in too many causes is "wishy-washy."	3.20	1.95	4.32	1.76	2.54	1.44	1.78	4.78	—	—
*34. To compromise is to betray own side.	2.78	1.59	3.32	1.71	1.95	1.06	1.37	4.11	2.59	5.59
*35. In religion, we should not compromise.	2.58	1.87	3.46	2.27	1.92	1.26	1.54	3.60	4.36	3.51
*36. To consider only one's own happiness is selfish.	4.21	2.01	5.41	1.44	3.62	2.03	1.79	3.31	3.95	4.50
37. To compromise is to appease.	2.23	1.48	2.95	2.02	1.70	.83	1.25	2.28	5.62	4.10
*38. Two kinds of people: those for, those against truth.	2.58	1.53	3.97	1.99	1.57	.86	2.40	6.74	—	—
*39. My blood boils when others won't admit they're wrong.	4.66	1.76	5.30	1.64	3.87	1.24	1.43	4.22	4.51	6.06
*40. One who thinks of own happiness beneath contempt.	4.17	1.93	4.97	1.71	3.57	1.88	1.40	3.35	3.44	5.41
*41. Most printed ideas aren't worth paper printed on.	3.52	1.94	4.73	1.91	2.73	1.75	2.00	4.68	—	—
42. I'm too critical of others' ideas.	4.81	1.73	5.30	1.53	4.19	1.89	1.11	2.77	—	—
C. Based upon the function of dogmatism										
*43. Man on his own is helpless and miserable.	3.43	2.18	4.92	2.08	2.41	1.81	2.51	5.55	4.14	5.82
*44. World a lonesome place.	3.23	1.96	3.89	2.02	2.41	1.64	1.48	3.47	—	—
*45. Most people don't give a "damn" for others.	3.75	1.87	4.57	1.81	2.81	1.68	1.76	4.33	—	—

TABLE 3 (Continued)

Items	Total Group (N = 137)		Highs (N = 37)		Lows (N = 37)		Diff.	t*	Form A t	Form B t
	M	$\sigma$	M	$\sigma$	M	$\sigma$				
*46. I want to find someone to solve my problems.	3.61	2.22	4.43	2.10	2.76	1.90	1.67	3.52	6.50	6.19
*47. Natural to fear future.	3.79	1.81	4.81	1.61	2.57	1.84	2.24	6.10	—	—
*48. So much to do, so little time to do it in.	5.86	1.60	6.40	1.01	5.19	2.06	1.30	3.44	—	—
*49. Once I get wound up, I can't stop.	3.34	1.94	3.73	2.01	2.43	1.37	1.30	3.24	3.77	5.17
*50. I repeat myself to make sure I'm understood.	3.50	1.91	4.30	1.83	2.78	1.72	1.52	3.65	—	—
*51. I don't listen.	3.44	1.80	3.92	1.87	2.78	1.71	1.14	2.73	4.63	5.55
*52. I interrupt others to put across my own views.	4.43	1.85	4.78	1.68	3.65	2.00	1.14	2.61	—	—
*53. Better be dead hero than live coward.	3.26	1.94	4.05	1.94	2.60	1.62	1.45	3.51	—	3.03
54. Hardest battles are with myself.	4.70	2.01	5.38	1.67	3.84	1.76	1.54	3.86	4.20	6.19
55. I'm no good.	4.60	2.02	5.38	1.67	3.84	2.08	1.54	3.51	5.03	6.14
56. I'm afraid people will find out what I'm really like.	2.83	2.03	3.40	2.24	1.67	1.54	1.52	3.38	5.50	4.56
*57. Secret ambition is to become a great man.	5.02	2.05	5.97	1.52	4.20	2.37	1.77	3.84	4.36	5.49
*58. Main thing in life is to do something important.	4.22	2.04	5.38	1.96	3.32	2.18	2.06	4.26	—	—
*59. If given chance I'd benefit world.	5.51	1.63	6.43	.68	4.81	1.86	1.62	4.96	4.00	5.58
60. Greatness more important than happiness.	2.05	1.74	2.89	2.34	1.97	1.65	.92	N.S.	4.54	3.72
61. People won't practice what they preach.	5.55	1.36	5.97	1.15	5.16	1.65	.81	N.S.	1.89	3.63
62. Most people failures and the system is responsible.	3.31	1.96	3.62	2.16	2.70	1.86	.92	N.S.	4.19	4.67
63. Strangers look at me critically.	4.10	1.94	5.22	1.69	3.35	1.91	1.87	4.44	5.09	6.00
64. Only natural to have guilty conscience.	3.35	2.04	4.65	1.92	2.46	1.68	2.19	5.38	3.58	4.78
65. People say insulting things about me.	2.68	1.71	3.78	1.86	2.03	1.48	1.75	4.48	4.48	5.61
66. I'm talked about.	3.25	1.99	4.22	1.91	2.70	1.80	1.46	3.29	6.64	4.69

\* Employing a one-tailed *t* test, *t*'s of 1.64 and 2.33 are significant beyond the 5 and 1 per cent levels, respectively, for large samples.

<sup>b</sup> A dash (—) means that the item in question was devised for a subsequent form.

\* Item retained in final 40-item scale.

to Form A, Ss employed a +3 to -3 agree-disagree scale with the 0 point excluded. As can be seen from Table 4 the corrected reliability of the total scale is .67 and .75. Of special interest is that the two subscales (L.O. and R.O.), despite the fact that they are only half as

long as the total opinionation scale, have reliabilities as high as the total scale. The reliability of the liberalism-conservative score (R.O. minus L.O.) is also as high or higher.

Form B was composed of the best 16 (out of 20) pairs taken from Form A, as

TABLE 4

CORRECTED RELIABILITIES OF THE TOTAL OPINIONATION SCALE (T.O.), LEFT OPINIONATION (L.O.), RIGHT OPINIONATION (R.O.), AND LIBERALISM-CONSERVATISM (R.O.-L.O.)

Form	Number of Items	Group	N	T.O.	L.O.	R.O.	R.O.-L.O.	Correlation between L.O. & R.O.
A	40	M.S.U. I N.Y. Colleges	202	.67	.64	.67	.66	-.22
			207	.75	.74	.77	.83	-.51
B	32	M.S.U. II	153	.68	.39	.68	.50	.09
C	40	M.S.U. III	186	.76	.68	.77	.70	.00
C <sub>E</sub>	40	English Colleges I	137	.75	.80	.88	.93	-.65
		English Colleges II	80	.75	.90	.86	.93	-.61
		English Workers	60	.75	.91	.91	.94	-.62



determined by item analysis. All 16 pairs were presented consecutively (without interspersions with other items) and Ss marked each item in terms of the following qualitative scale:

1. I disagree with the statement
2. I agree with the statement in part
3. I agree with the statement

The purpose of this 3-point qualitative scale was to give S the opportunity to agree with the content of the statement and at the same time to indicate, if he so desired, his disapproval or rejection of the opinionated manner in which the statement is put. It was reasoned that a person agreeing both with the content of the statement and the opinionated manner in which it is put would respond with a "3," while another person agreeing with the content but not with the opinionated manner in which it is put would prefer to respond with a "2." Thus, only "3" responses can be assumed to indicate "opinionation," and the total opinionation score is simply the number of statements responded to with a "3." (Responses of the "2"-type indicate "non-opinionation," and "1"-type responses are indeterminate with respect to opinionation since S presumably disagrees with the content of the statement. It should be noted, furthermore, that the three possible responses represent a nominal scale because they are qualitatively different from each other and not linear, in contrast to the 6-point Likert-type scale employed in Form A, which is linear.)

It can be seen from Table 4 that this change in rating procedure (Form B) did not raise the reliability of the total scale, as compared with Form A, and in fact lowered substantially the reliability of the left opinionation ( $r = .39$ ) and liberalism-conservatism scores ( $r = .50$ ).

In a further attempt to increase reli-

ability we developed Forms C (presented in Table 1) and C<sub>E</sub>. Form C<sub>E</sub> was employed in England. It is identical in structural design to Form C with the exception that its wording and content were altered wherever necessary to suit British conditions.<sup>10</sup> Both forms are composed of 40 items, and once again responses were on a -3 to +3 scale with the 0 point excluded. In contrast to the preceding forms A and B, the 20 left- and the 20 right-opinionation items are not paired or matched in content, that is, they are highly diversified in content. A major reason for abandoning the matched left and right pairs is that we suspected that Ss perceived the pairs as opposites and thus felt that they had to agree with one of the items, and disagree with its opposite. Thus it was possible to intersperse each item among the many other items of the questionnaire designed to measure other variables.

It is seen that this revision did not affect the reliability of the total Opinionation scale. In fact, it is noteworthy that despite the various revisions in wording and item content, in pairing or nonpairing of items, in extent of interspersions with other items, and in type of agree-disagree scale employed, that the reliability of the total scale remains about the same ( $r = .67$  to  $.75$ ). Moreover, the reliabilities of the Left- and Right-Opinionation subscales are about the same as those for Form A, in which the left and right statements were paired and presented together. Similarly, the reliabilities of the Left- and Right-Opinionation subscales and of the liberalism-conservatism measure are as high as the reliability of the total scale. And with Form C<sub>E</sub> we note that the reliabilities of the two sub-

<sup>10</sup> A copy of Form C<sub>E</sub> is available upon request.

scales and the liberalism-conservatism measure are consistently *higher* ( $r = .86-.94$ ) than those found for the total scale ( $r = .75$ ). At first glance, these findings seem suspect in that they appear to violate the widely-accepted notion that subscale reliabilities cannot be as high or higher than reliabilities of total scales. These unusual findings are at least partly explained by the fact that in general left and right opinionation correlate either negligibly or negatively, as shown in the last column of Table 4. Thus, it is seen that the total Opinionation scale, by virtue of the logic of its design, is inherently more heterogeneous than either the Left- or Right-Opinionation subscales. Moreover, these findings suggest that further efforts to increase the reliability of the total scale, given a test of about 40 items, would probably prove unrewarding.

Let us consider further the correlation between left and right opinionation for the various groups. We note that for the three Michigan State University groups the correlations are  $-.22$ ,  $.09$ , and  $.00$ , respectively. For the New York Colleges group, the correlation is  $-.51$ , and for the three English groups the correlations are  $-.65$ ,  $-.61$ , and  $-.62$ , respectively. These findings strongly suggest that there are sharp discrepancies among the three sets of groups in the organization of attitudes along the left-right dimension. For the Michigan State University groups, Ss are about as likely as not to adhere with varying degrees of opinionation to both left and right beliefs at the same time. That is, it is not possible to predict scores on left opinionation from scores on right opinionation. In contrast, the negative correlation of  $-.51$  between left and right opinionation for the New York college group indicates a more consistent organization of political and

religious beliefs in terms of the left-to-right dimension. And this trend is even more apparent in the two English college groups and in the English worker group.

The findings with respect to left and right opinionation parallel the reliabilities of the liberalism-conservatism score. The highest reliabilities are found for the three English groups ( $.93$ ,  $.93$ , and  $.94$ ), the next highest is found for the New York group ( $.83$ ), and the lowest are found for the three Michigan State University groups ( $.66$ ,  $.50$ , and  $.70$ ).

It may be suggested that the findings discussed above are relevant to the study of regional or national character and of modal personality (14). Further research regarding attitude organization in various regions of the United States and in various foreign countries, and a careful analysis of the implications of such attitude organization for intergroup relations, might prove rewarding.

Consider next the means and standard deviations on total opinionation, left opinionation, and right opinionation, as shown in Table 5. It is seen that for all American groups the mean right-opinionation scores are considerably higher than the mean left-opinionation scores (and significantly so). The same is true for the English worker group (but not significantly). The reverse is the case for the two English college groups, whose mean left-opinionation scores are significantly higher than the mean right-opinionation scores.

To be noted also is that the mean score on total opinionation remains approximately the same for all groups tested with Forms A, C, and C<sub>E</sub> (which are roughly but not completely comparable). The only exception is the English worker group, which scores significantly higher than each of the remaining groups (excluding from consideration the M.S.U.

TABLE 5  
MEANS AND STANDARD DEVIATIONS ON LEFT, RIGHT, AND TOTAL OPINIONATION

Form	Number of Items	Group	N	Left Opinionation		Right Opinionation		Total Opinionation	
				M	$\sigma$	M	$\sigma$	M	$\sigma$
A	40	M.S.U. I N.Y. Colleges	202	59.20	11.95	87.25	13.75	146.45	16.03
			207	66.67	17.28	79.61	18.39	146.28	17.69
B <sup>a</sup>	32	M.S.U. II	153	1.16	1.32	5.75	3.13	6.91	3.56
C	40	M.S.U. III	186	61.17	11.94	80.84	14.60	142.01	18.94
C <sub>E</sub>	40	English Colleges I	137	77.77	21.80	67.23	21.30	145.00	17.80
		English Colleges II	80	76.60	23.00	62.55	17.90	139.15	17.00
		English Workers	60	75.40	25.50	80.85	25.70	156.25	19.40

<sup>a</sup> See text for a discussion of the low means for Form B.

II group). This finding is in agreement with the findings reported earlier regarding the higher mean dogmatism score of the English Worker group (Table 2). And as already stated, it is not possible to decide whether the higher total opinionation mean of this group indicates that they are indeed more opinionated or, more simply, that they have a greater tendency, due to lesser education, to endorse the statements presented.

We turn next to consider the results of the item analysis of the Opinionation scale, Form C. These are shown in Table 6. Also shown are the *t* ratios for 20 of the 40 items which had been employed in Form A.<sup>11</sup>

There are a number of points which should be noted:

1. It is a basic principle of test construction that double-barreled statements should be avoided. This principle is necessarily violated in measuring opinionation because by definition this variable involves the frequency with which individuals accept or reject such double-

barreled statements. This is bound to affect both the reliability of the total scale and the discriminatory power of each item. It is therefore all the more surprising that the Opinionation scale and subscales achieve the relatively high reliabilities that they do, and that the great majority of the items (37 out of 40 on Form C) significantly differentiate upper from lower opinionation quarters beyond the 5 per cent confidence level.

2. The right-opinionation items generally discriminate more sharply than the left-opinionation items.

3. On the whole the difference in means on the various items between high- and low-opinionation group is generally lower than that between high- and low-dogmatism groups for the items on the Dogmatism scale. This is probably due to the fact, as already noted, that the Opinionation scale contains double-barreled statements and has "left" and "right" parts to it. Neither of these characterize the Dogmatism scale. Despite these differences, however, the reliabilities of the 40-item Opinionation scale, Forms C and C<sub>E</sub>, and the 40-item Dogmatism scale, Form E, are about the same (.75-.80).

4. In general, the opinionated rejec-

<sup>11</sup> We did not conduct an item analysis of Form B because a study of the reliabilities for the total scale and the several subscales led us to believe that further development of this scale (see earlier description of its design) would not be worthwhile.

TABLE 6  
ITEM ANALYSIS OF THE OPINIONATION SCALE, FORM C FOR THE M.S.U. III GROUP

Items	Total Group (N = 186)		Highs (N = 47)		Lows (N = 47)		Diff.	t <sup>a</sup>	Form A <sup>b</sup> t	Form A <sup>b</sup> t
	M	s	M	s	M	s				
Left Opinionation, Opinionated Rejection										
1. Pro-Roosevelt	5.35	1.06	5.75	1.63	4.68	2.29	1.07	2.58	N.S.	N.S.
2. No race differences	3.92	2.00	4.92	1.70	3.06	1.90	1.86	4.95	3.80	6.41
3. Pro-Truman's Fair Deal	2.31	1.28	2.92	1.40	1.66	.69	1.26	5.32	4.92	4.17
4. Anti-loyalty oaths	3.94	1.80	4.04	1.91	3.70	1.87	.34	N.S.	2.90	2.88
5. Russia not imperialistic	4.13	1.84	4.72	1.71	3.77	1.83	.95	2.57	3.65	2.52
6. Anti-real estate interests	3.20	1.60	4.17	1.43	2.30	1.16	1.87	6.93	—	—
7. Government & education not Red-infiltrated	1.86	1.07	2.15	1.13	1.43	.56	.72	3.85	—	—
8. Anti-universal military training	2.22	1.24	2.80	1.51	1.77	1.09	1.12	4.06	—	—
9. Anti-government support of religion	5.02	2.02	5.72	1.66	3.94	2.14	1.78	4.45	—	—
10. Anti-McCarthy	2.99	1.60	3.62	1.77	2.57	1.56	1.05	3.02	—	—
Left Opinionation, Opinionated Acceptance										
11. Pro-Rosenbergs	2.39	1.55	2.40	1.48	2.77	1.78	-.37	N.S.	—	—
12. Anti-MacArthur	2.61	1.57	3.00	1.70	2.32	1.58	.68	1.99	3.63	2.85
13. Anti-big business	3.93	1.87	4.30	1.87	3.40	2.05	.81	1.98	—	—
14. Pro-social security	2.28	1.40	2.55	1.71	1.87	1.13	.68	2.25	—	—
15. Anti-Congressional investigating committees	2.80	1.52	2.96	1.70	2.36	1.23	.60	1.94	—	—
16. Anti-American Legion	2.08	1.07	2.28	1.00	1.70	.93	.58	2.80	—	—
17. Pro-soak-the-rich taxes	2.51	1.43	3.38	1.49	2.00	1.25	1.32	4.62	—	—
18. Rich getting richer, poor getting poorer	2.32	1.45	2.72	1.57	1.77	.96	.95	3.49	—	—
19. Capitalism causes depressions and wars	2.12	1.10	2.72	1.55	1.72	.72	1.00	3.95	3.53	3.20
20. Anti-Hoover	3.14	1.60	4.04	1.71	2.38	1.20	1.66	5.39	3.69	2.67
Right Opinionation, Opinionated Rejection										
21. Anti-socialized medicine	3.92	2.00	5.23	1.83	2.94	1.64	2.29	6.33	4.95	4.21
22. Pro-Eisenhower	4.04	1.60	4.55	1.48	3.47	1.66	1.08	3.28	—	—
23. Reds yell about civil rights	3.33	1.68	4.38	1.72	2.38	1.52	2.00	5.00	—	—
24. Anti-Labor	4.55	1.77	5.38	1.58	3.21	1.78	2.17	6.18	5.31	6.43
25. Anti-Democratic Party	4.38	1.84	4.79	1.79	4.11	1.89	.68	1.77	—	—
26. Pro-God	4.31	1.06	5.15	1.79	3.68	2.11	1.47	3.61	4.52	4.00
27. Anti-government ownership of utilities	3.23	1.64	4.13	1.61	2.13	1.10	2.00	6.99	—	—
28. U.S. no warmonger	4.75	1.79	5.38	1.45	4.23	1.06	1.15	3.21	4.16	3.07
29. Anti-socialism	3.44	1.70	4.55	1.67	2.36	1.35	2.19	6.93	—	—
30. Anti-Red China	4.14	1.60	4.77	1.39	3.66	1.79	1.11	3.31	4.78	4.41
Right Opinionation, Opinionated Acceptance										
31. U.S. re-arms to stop aggression	4.40	1.80	5.10	1.54	3.94	1.93	1.25	3.42	3.83	1.83
32. Prejudice removable by education	5.74	1.54	6.00	1.20	5.45	1.93	.55	N.S.	3.68	3.73
33. U.S. should send military aid	2.67	1.54	2.98	1.78	2.30	1.47	.68	2.03	—	—
34. Pro-Churchill	4.92	1.20	5.45	1.08	4.66	1.50	.79	2.90	2.75	3.45
35. U.S. re-arms to preserve freedom	4.00	1.71	5.30	1.28	4.04	1.97	1.26	3.04	3.50	3.93
36. Pro-Chiang Kai Shek	3.49	1.64	4.51	1.49	2.75	1.49	1.76	5.66	4.87	4.88
37. U.N. a failure	1.93	1.22	2.36	1.45	1.36	.81	1.00	4.08	—	—
38. Businessman contributes most to society	3.85	1.78	4.45	1.73	2.98	1.60	1.47	4.13	—	—
39. Pro-Franco	4.49	1.66	5.00	1.52	3.70	1.81	1.30	3.74	3.81	2.75
40. Alger Hiss a traitor	4.62	1.57	5.13	1.32	3.75	1.65	1.38	4.44	—	—

<sup>a</sup> Employing a one-tailed *t* test, *t*'s of 1.64 and 2.33 are significant beyond the 5 and 1 per cent levels, respectively, for large samples.

<sup>b</sup> These *t*'s are obtained from an item analysis of the M.S.U. I group (*N*=202).

<sup>c</sup> These *t*'s are obtained from an item analysis of N.Y. Colleges Group (*N*=207).

<sup>d</sup> A dash (—) means that the item in question was devised for a subsequent form.

tion items are more discriminating than the opinionated acceptance items.

5. The best items on the Opinionation scale, employing the arbitrary criterion of a *t* of 5.00 or more for items used in Form C only, and a *t* of 4.00 or more for items used in both Forms A and C, are:

Item 3. There are two kinds of people who fought Truman's Fair Deal program: the selfish and the stupid.

Item 6. It's mainly those who believe the propaganda put out by the real-estate interests who are against a federal slum clearance program.

Item 21. It's simply incredible that anyone should believe that socialized medicine will actually help solve our health problems.

Item 23. It's the fellow travellers or Reds who keep yelling all the time about Civil Rights.

Item 24. It's the radicals or labor racketeers who yell the loudest about labor's right to strike.

Item 27. It's usually the trouble-makers who talk about government ownership of public utilities.

Item 29. It's mostly the noisy liberals who try to tell us that we will be better off under socialism.

Item 36. This much is certain! The only way to defeat tyranny in China is to support Chiang Kai-shek.

## VI. MAJOR HYPOTHESES

Thus far we have tried to show how our theoretical formulations guided the construction of the Dogmatism and Opinionation scales. The next step is to determine their validity. Several methods are available for determining this: (a) validation against external behavioral criteria, (b) validation by the method of known groups, (c) validation against other standardized scales purporting to measure the same or similar variables, and (d) theoretical validation by testing hypotheses stemming from a set of theoretical considerations.

We propose to employ a combination of methods *b*, *c*, and *d* above. In employing these methods our aim will be twofold: to determine not only the validity of our conceptualization and measurement of the phenomenon of dogmatism, but also the validity of our assumptions regarding the nature of the conceptualizations and measurements employed in the California research.

Each of the three major hypotheses of the study, to be set forth below, addresses itself to this twofold purpose.

## HYPOTHESIS A: DOGMATISM AS A MEASURE OF GENERAL AUTHORITARIANISM

A major defining characteristic of dogmatism is that it involves adherence to some central set of beliefs in absolute authority. Thus, it should be possible to demonstrate that dogmatism is related to some independent measure of authoritarianism. The F scale has become widely accepted as a measure of authoritarianism. One would therefore expect that scores on the Dogmatism scale would be related, to a considerable extent, to scores on the F scale.

However, the Dogmatism scale should also differ in certain important respects from the F scale. It has been repeatedly

shown that the F scale correlates substantially with ethnocentrism (average  $r = .73$ ). If the Dogmatism scale does indeed represent a measure of authoritarianism regardless of specific ideological or attitudinal position, then it should be relatively independent of ethnocentrism and independent of position along the left-to-right continuum. And it should correlate with the F scale independently of these variables.

## HYPOTHESIS B: LEFT, RIGHT, AND TOTAL OPINIONATION IN RELATION TO DOGMATISM AND THE AUTHORITARIAN PERSONALITY

A major defining characteristic of dogmatism is opinionation. Thus scores on the two scales should be systematically related to each other. However, the manner in which the Dogmatism scale will be related to opinionation should differ markedly from that expected between the F scale and opinionation, or between the E scale and opinionation. In the case of the Dogmatism scale its relation to opinionation should be a function of positive relations to both left and right opinionation; that is, scores on the Dogmatism scale should be positively related to scores on the Left and Right Opinionation subscales as well as to the Total Opinionation scale. In the case of the F and E scales, however, it is expected that they will be related primarily to the Right Opinionation subscale but not at all to the Left Opinionation subscale.

## HYPOTHESIS C: RELIGIOUS AND POLITICAL COMMITMENT IN RELATION TO DOGMATISM AND THE AUTHORITARIAN PERSONALITY

It is well known that there exist certain institutionalized, hierarchically or-



ganized groups, for example, the Catholic Church and Communist Party, which demand strict adherence to the religious or political doctrines to which they are committed. Whether one becomes a member of such a social organization by birth or by joining it later, it can be broadly assumed that the field forces operating upon the person will be such that they will force him to commit himself in advance, that is, to accept in advance the group's ideology and to reject in advance alternative ideologies. It is beyond the scope of the present research to spell out in detail how such pressures may be exerted. This is a challenging research problem in itself. However this may be achieved, strong group pressures toward commitment are assumed to have manifold effects upon the cognitive organization and development of a person's belief-disbelief system: isolation within and between belief and disbelief systems, narrowing, dedifferentiation of the disbelief system—indeed, all the sub-variables which we have assumed to be defining characteristics of dogmatic thinking and believing.

Accordingly, it is hypothesized that the greater the group pressures toward commitment—religious or political, left-of-center or right-of-center—the greater the

dogmatism and opinionation.

What can one say about the effects of group pressures toward commitment on authoritarianism and intolerance, as measured by the F and E scales? This will depend, in part, upon whether the commitment is to a left-of-center or right-of-center ideological outlook. In the case of strong commitment to a left-of-center ideological group we hypothesize, in line with our theoretical analysis, relatively high scores on the Dogmatism and Opinionation scales, but at the same time relatively low scores on the F and E scales. This is consistent with the assumption that the F and E scales measure primarily right authoritarianism and intolerance. In the case of commitment to a right-of-center ideology we hypothesize not only relatively high scores on the Dogmatism and Opinionation scales but also relatively high scores on the F scale. Whether or not there will also be relatively high scores on the E scale, however, is difficult to predict in advance since it is quite possible for a right-of-center group (e.g., a religious group) to demand from its members strict adherence to its ideological outlook but at the same time advocate equalitarian attitudes toward Jews, Negroes, etc.

## VII. HYPOTHESIS A: DOGMATISM AS A MEASURE OF GENERAL AUTHORITARIANISM

### A. RESULTS

#### 1. *Dogmatism and the F Scale in Relation to Ethnocentrism*

In Table 7 are shown the correlations found between dogmatism (D) and authoritarianism (F) for the various groups tested in the United States and England. Also shown are the correlations between each of these two variables and ethnocentrism (E). Finally, in the last column is shown the correlation between dogma-

tism and authoritarianism with ethnocentrism held constant by the method of partial correlation.

It is seen that the correlations between D and F range from .54 to .77 in the several groups sampled. These are to be compared with the correlations between F and E which range from .56 to .64. The latter findings are consistent with the findings reported by Adorno *et al.* (1), and by Christie and Jahoda (4). The correlations between D and F are about

TABLE 7  
INTERCORRELATIONS AMONG DOGMATISM (D),  
AUTHORITARIANISM (F), AND  
ETHNOCENTRISM (E)

Group	Correlations				
	N	D,F	F,E*	D,E	(D,F) · E
M.S.U. I	202	.67	.56	.36	.61
N.Y. Colleges	207	.58	.63	.46	.42
Jewish sub-sample	131	.61	.60	.49	.45
M.S.U. II	153	.61	.58	.33	.54
M.S.U. III	186	.54	.64	.31	.47
English Colleges I	137	.57	.58	.39	.46
English Colleges II	80	.62	.62	.32	.57
English Workers	60	.77	.56	.53	.67

\* There were 21 Jews in the English Colleges I group, 11 Jews in the English Colleges II group, one Jew in the English Worker group. These Ss were excluded in computing the correlations between F and E, and between D and E ( $N = 116, 60, 50$ , respectively).

as high as those between E and F, the average  $r$  for the former being .62, for the latter .60.

That D and F correlate as highly with each other as do E and F would lead one to suspect that D would also correlate with E to about the same extent as F correlates with E. But a glance at the third column of Table 7 shows that in every group tested the correlation between D and E is smaller than that between F and E. This leads us to the last column of Table 7 which shows the correlations between D and F when ethnocentrism is held constant by the method of partial correlation. In the M.S.U. I group, for example, the correlation between D and F drops only from .67 to .61 when E is partialled out. In the various groups the partialled correlations drop to varying degrees, but in every case the decreases are relatively small, and all the partialled correlations remain significant well beyond the one per cent confidence level.

## 2. Further Analysis of What the F Scale Measures

It is well known that each of the F-scale items was validated by determining the extent to which each item discriminated between upper and lower ethnocentrism quarters (1). All the items retained in the final F scale—the one employed in the present research—discriminated significantly between extreme E groups. Thus, it is indeed surprising to find that the F scale correlates to the extent that it does with the Dogmatism scale even when ethnocentrism is partialled out or held constant.

The findings just presented indicate a need to examine more closely what it is that the F scale measures. We did this in the following manner: For the M.S.U. I group ( $N = 202$ ) and the New York Colleges group ( $N = 207$ ) the Ss were first divided equally into high- and low-E groups according to whether their ethnocentrism scores fell above or below the median. These two groups were then further subdivided into high- and low-dogmatism groups according to whether Ss scored above or below the median dogmatism score for the total group. In this way four subgroups were obtained: I. Low E, Low D; II. Low E, High D; III. High E, Low D; IV. High E, High D. These four subgroups were then compared on each of the F scale's 29 items.<sup>12</sup>

The full details of this analysis are too long to present here. Instead, we present, in Table 8, a summary of one analysis which, to our mind, is a crucial one.

Table 8 shows that there are 9 F items out of 29 which differentiate significantly (in the M.S.U. I group or the N.Y. group

<sup>12</sup> The F scale employed in the present research is Form 40-45. Through an oversight, one item (force to preserve) was omitted.

TABLE 8  
F-SCALE ITEM COMPARISONS AMONG GROUPS HIGH AND LOW IN DOGMATISM  
AND ETHNOCENTRISM

Group I = Low in ethnocentrism, low in dogmatism Group II = Low in ethnocentrism, high in dogmatism Group III = High in ethnocentrism, low in dogmatism Group IV = High in ethnocentrism, high in dogmatism	
F-scale items which differentiate significantly* between:	
I and II but not between II and IV	II and IV but not between I and II
1. A person who has bad manners, habits and breeding can hardly expect to get along with decent people. 2. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down. 3. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith. 4. Nobody ever learned anything really important except through suffering. 5. When a person has a problem or worry it is best for him not to think about it, but keep busy with more cheerful things. 6. People can be divided into two distinct classes: the weak and the strong. 7. Most people don't realize how much our lives are controlled by plots hatched in secret places. 8. Familiarity breeds contempt. 9. The wild sex-life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.	1. The businessman and the manufacturer are much more important to society than the artist and the professor. 2. Science has its place, but there are many important things that can never possibly be understood by the human mind. 3. No sane, normal, decent person could ever think of hurting a close friend or relative. 4. What the youth need is strict discipline, rugged determination, and the will to work and fight for family and country. 5. Homosexuals are hardly better than criminals and ought to be severely punished. 6. Some people are born with an urge to jump from high places. 7. Wars and social troubles may someday be ended by an earthquake or flood that will destroy the whole world. 8. Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them.

\* Two-tailed *t* tests were employed in this analysis. The statement "F-scale items which differentiate significantly between I and II but not between II and IV" means that such items differentiate significantly beyond the five per cent level between I and II in the M.S.U. I group or the New York College group or both, but do not differentiate significantly between II and IV either in the M.S.U. I group or the New York group.

or both) *only* between the Low E, Low D group (I) and the Low E, High D group (II) but not between the Low E, High D group (II) and the High E, High D group (IV). In other words, these nine items differentiate significantly between two groups of Ss low in E differing in dogmatism, and do not differentiate significantly between two groups of Ss differing in E but equated on dogmatism.<sup>13</sup>

<sup>13</sup> Six of these nine items also discriminate significantly between Groups III and IV in the M.S.U. I group, or the New York Colleges group, or both.

Other F items—8 out of 29—show exactly the opposite trend. They discriminate significantly, in the M.S.U. I group, or the N.Y. group, or both, *only* between the two groups of Ss differing in E but equated on dogmatism (Group II vs. Group IV), but not between the two groups low in E differing in dogmatism (Group I vs. Group II). Of the remaining 12 F items (29-9-8=12), 10 discriminated significantly not only between Groups I and II but also between II and IV. One item (prewar authorities in Germany should be used in postwar Ger-

many) differentiated significantly only between Groups I and IV. One item (astrology) did not differentiate significantly among any of the four groups either in the M.S.U. I group or the New York Colleges group.

The results just discussed shed added light on what the various items on the F scale actually measure. We will discuss these results more fully in the latter part of this section.

### 3. Dogmatism and the F Scale in Relation to Liberalism-Conservatism

We proceed next to present data of another sort bearing on Hypothesis A. In Table 9 are shown the correlations between the Dogmatism scale and two measures of liberalism-conservatism: the P.E.C. scale (1) and the score obtained by subtracting the left-opinionation score from the right-opinionation score. These are to be compared with correlations found between the F scale and these same two measures. Also shown are the correlations found between the two measures of liberalism-conservatism.

One must bear in mind, when interpreting these data, that the P.E.C. scale employed was composed of only 5 items

and that the second measure employed (R.O. - L.O.) measures degree of orientation leftward or rightward relatively crudely. Thus, the correlations shown in Table 9 are of interest not so much because they reflect true relationships but rather because they point up differences in the extent to which the D and F scales correlate with liberalism-conservatism.

Attention is drawn first to the last column of Table 9 showing the correlations between the two measures of liberalism-conservatism. While these correlations are by no means high they are in every case higher than the correlations between either of these two measures and D or F. It is on the basis of this latter finding that we feel justified in assuming that the (R.O. - L.O.) measure is, like the better known P.E.C. scale, at least a rough index of liberalism-conservatism.

Table 9 shows that on the whole the Dogmatism scale correlates to a negligible extent with the two measures of liberalism-conservatism. And in every single group, the F scale correlates more highly with liberalism-conservatism than does the D scale.

At the same time it is worth noting

TABLE 9  
THE DOGMATISM AND F SCALES IN RELATION TO LIBERALISM-CONSERVATISM

Group	N	Correlations between D and		Correlations between F and		Correlation between P.E.C. and (R.O.-L.O.)
		P.E.C.	(R.O.-L.O.) <sup>a</sup>	P.E.C.	(R.O.-L.O.)	
M.S.U. I	202	.13	.13	.22	.28	.38
N.Y. Colleges	207	.11	.04	.43	.37	.58
M.S.U. II	153	.20	.13	.29	.21	.30
M.S.U. III	186	.28	.17	.40	.35	.49
English Colleges I	137	— <sup>b</sup>	.12	—	.36	—
English Colleges II	80	—	-.03	—	.31	—
English Workers	60	—	.11	—	.15	—

<sup>a</sup> Right-opinionation score minus left-opinionation score. Positive differences indicate a rightist orientation; negative differences indicate a leftist orientation.

<sup>b</sup> The P.E.C. scale was not employed in the English research.

that the correlations between dogmatism and conservatism, while quite small, are consistently positive. Several interpretations of this finding are possible and will be considered in Section X.

#### B. DISCUSSION

We have brought to bear several kinds of evidence relevant to the hypothesis that the Dogmatism scale represents a measure of general authoritarianism, and that the F scale, by contrast, represents a measure of right authoritarianism.

The D scale correlates relatively highly with the F scale—as highly as the correlations between the F and E scales. When E is held constant by the method of partial correlation, the correlations between D and F are reduced but slightly.

The Dogmatism scale appears to be about as good a measure of authoritarianism as the F scale. These two scales correlate as highly with each other as do the F and E scales. At the same time, the Dogmatism scale clearly differs from the F scale in that it is related to ethnocentrism to a smaller extent, and considering the size of the correlations between D and F when E is held constant it can be said that the D scale measures authoritarianism independent of ethnic attitudes.

*The dogmatic low.* It now becomes possible, perhaps for the first time, to distinguish objectively by means of the Dogmatism scale between persons whose low-ethnocentric beliefs are dogmatic and "pseudo-democratic" from those whose low-ethnocentric beliefs are more "genuine." Thus, low E-scorers differ widely in dogmatism and even though their F-scale scores are relatively low.

*The "nondogmatic" high.* By the same token, it now becomes empirically possible to speak not only of low-ethnocentric persons as differing in dogmatism

(and authoritarianism) but also of high-ethnocentric persons as differing in dogmatism (and authoritarianism). As has been shown, high E-scorers differ markedly in degree of dogmatism, and even though they score relatively highly on the F scale, dogmatism and F scores are systematically related to each other.

These findings suggest the following:

(a) Highly ethnocentric attitudes, as measured by the E scale, are by no means necessarily a function of an authoritarian personality structure. (b) By means of the Dogmatism scale it is possible to differentiate the low-dogmatic, low-authoritarian person who scores high on the E scale from the high-dogmatic, high-authoritarian person who scores high on the E scale. (c) Unanalyzed social and personal conditions other than authoritarian personality structure are probably operating to produce high scores on the E scale. What these conditions are is, to our mind, a fruitful question to which future research should address itself. (d) Action programs designed to reduce ethnic prejudice (e.g., fair employment practices programs; desegregation in education and housing; etc.) may have differential effects upon persons having anti-ethnic attitudes, depending upon the extent to which such attitudes are imbedded in "authoritarian-dogmatic" personality structure.

*Is the F scale a scale?* The findings further lead us to ask whether the F scale, considered alone, orders individuals quantitatively along a continuum of authoritarianism. For example, it appears that a highly dogmatic person in the lowest E quarter does not have to obtain as high an F score as a highly dogmatic person in the upper E quarter in order to be equally authoritarian. In other words, our findings suggest that depending upon where one falls on the

E scale continuum, different F scores may represent equal degrees of authoritarianism, and the same F score may represent different degrees of authoritarianism.

The interpretation that the F scale may not represent an ordinal continuum becomes even more compelling when we consider the data for each F item, comparing high and low ethnocentrism groups further subdivided into high and low dogmatic groups. These data make it possible to pin down more precisely what sort of authoritarianism each F item measures. We reasoned that if the F scale is indeed related to ethnocentric attitudes toward Jews, Negroes, etc., then each F item should continue to discriminate between high and low E scores regardless of whether they are equated for dogmatism or any other variable. And certainly none of the F items should be expected to discriminate *only* between two groups of low E scorers, or high E scorers, differing in dogmatism.

*Three sets of F items*, more or less distinct from each other, emerge from this analysis:

1. Eight of the 29 F items discriminate between high and low E groups, when these groups are equated for dogmatism (Group II vs. IV) but not between two groups of low E scorers differing in dogmatism (Group I vs. II). Thus, it would appear that it is these items which are "bearing the burden" in giving the F scale its characteristic items which tap primarily association with ethnocentrism. The content of these items has to do with the glorification of the business man and the manufacturer, the belief that beyond science is the supernatural, an inability to express hostility toward close relations, a belief in strict discipline for youth, a punitive attitude toward homosexuals, the belief that some people are

born with an urge to jump from high places, the belief that some day the world will be overcome by catastrophe, and a fear of infection and disease.

2. Nine F items discriminate between two groups of low E scorers, high and low dogmatism (Group I vs. II) but not between high and low E groups high in dogmatism (Group II vs. IV). This finding is a surprising one in view of the fact that *all* the F items were originally validated against extreme groups on the E scale. Again the content of these items is worth noting; they have to do with bad manners and breeding, the belief that youth should outgrow its rebelliousness, the need for tireless, devoted leaders, learning through suffering, keeping busy to avoid self-scrutiny, the division of people into weak and strong, paranoid ideas about secret plots, familiarity leading to contempt, and the projection of sexual impulses onto others.

3. Ten of the remaining 12 F items discriminate significantly between high and low-ethnocentric groups equated for dogmatism, and between high- and low-dogmatic groups equated for ethnocentrism.

From these findings there emerges a clearer understanding of what the F scale measures. Approximately one-third of the items (eight items) seem to measure right authoritarianism, another third general authoritarianism (nine items) and the remaining third something in between right and general authoritarianism (10 items). The net effect seems to be a scale "loaded" in such a way that it taps primarily right authoritarianism. Thus, the F scale is seen to be useful as a measure of individual differences in authoritarian personality structure *primarily among persons to the right-of-center*. It becomes increasingly insensitive as a measuring device the more one's atten-



TABLE 10  
LEFT, RIGHT, AND TOTAL OPINIONATION: CORRELATION WITH OTHER VARIABLES

Group	N	Correlation Between											
		Dogmatism and—			F scale and—			Ethnocentrism <sup>a</sup> and—			P.E.C. Scale <sup>b</sup> and—		
		Left Opin.	Right Opin.	Total Opin.	Left Opin.	Right Opin.	Total Opin.	Left Opin.	Right Opin.	Total Opin.	Left Opin.	Right Opin.	Total Opin.
M.S.U. I	202	.22	.40	.51	.11	.53	.54	-.08	.50	.37	-.20	.41	.19
N.Y. Colleges	207	.20	.23	.43	-.08	.50	.50	-.22	.62	.43	-.30	.60	.25
M.S.U. II	153	.20	.31	.34	.12	.40	.45	.02	.44	.41	-.10	.29	.21
M.S.U. III	186	.24	.42	.47	.12	.55	.49	.01	.50	.39	-.18	.48	.20
English Colleges I	137	.17	.38	.61	-.27	.64	.40	-.21	.58	.38	—	—	—
English Colleges II	80	.25	.25	.55	-.06	.56	.46	-.22	.49	.20	—	—	—
English Workers	60	.22	.43	.63	.18	.47	.63	-.18	.59	.50	—	—	—

<sup>a</sup> The N's for the English Colleges I, II, and English Worker samples are 116, 60, and 50 respectively, since Jewish Ss were omitted.

<sup>b</sup> Not given in England.

tion shifts away from the study of right authoritarianism to the study of authoritarianism along other points on the left-to-right continuum.

Additional evidence, regarding the differential properties of the Dogmatism and F scales is found in their differential correlations with liberalism-conservatism, shown in Table 10. The Dogmatism scale correlates negligibly with conservatism and in every case these correlations are smaller than those between the F scale and conservatism. These findings indicate also that dogmatism is to be found with approximately equal frequency

along all positions of the left-to-right continuum.

Nevertheless, it should not be overlooked that the correlations between dogmatism and conservatism, while small, are consistently positive. This finding is probably related to the additional finding of positive correlations between D and E, and is further related to other findings to be presented shortly in connection with Hypothesis B. We will therefore delay further consideration of the possible theoretical significance of these findings until Section X.

#### VIII. HYPOTHESIS B: LEFT, RIGHT, AND TOTAL OPINIONATION IN RELATION TO DOGMATISM AND THE AUTHORITARIAN PERSONALITY

##### A. RESULTS

As already stated the Opinionation scale is essentially a measure of one aspect of dogmatism, namely, intolerance of those who disagree with, and qualified tolerance of those who agree with, one's views. The Left- and Right-Opinionation subscales are measures of the extent to which one is opinionated in a left or right direction, respectively. But considered as separate scores these subscales do not tell us much about individual differences in opinionation. It is the total

opinionation score—the sum of left and right opinionation—which provides this information.

The California E scale also represents a measure of intolerance. We have, then, two measures of intolerance. The Opinionation scale defines intolerance in terms of acceptance or rejection of others who agree or disagree with one's views; the E scale defines intolerance in terms of acceptance or rejection of ethnic groups.

Hypothesis B is to the effect that dog-

matism should be positively related to total opinionation, and to left and right opinionation as well. The F and E scales, however, should be related only to right opinionation and not at all, or even inversely, with left opinionation. That is, the F and E scales should be sensitive as predictors of individual differences in right opinionation but relatively insensitive as predictors of individual differences in left opinionation.

The results bearing on this issue are shown in Table 10. Also shown are the correlations between the P.E.C. scale and left, right, and total opinionation.

The following points are noted:

1. To be kept in mind is that the total Opinionation scale is composed of 40 items, 20 of which are left- and 20 right-opinionation items. As has already been shown in Table 4, left and right opinionation are either negligibly related to each other in some groups, or related negatively to a considerable extent in other groups.

2. The total Opinionation scale correlates with the D scale to about the same extent as with the F scale. In the former case the range of  $r$ 's is from .34 to .63; in the latter case the range is from .40 to .63. The total Opinionation scale correlates to a somewhat lesser extent with the E scale, the range of  $r$ 's being from .20 to .50. And it correlates to an even smaller, but nevertheless positive extent with P.E.C., the range being from .19 to .26.

3. The most important finding bearing on Hypothesis B is that in all groups dogmatism correlates positively with both left and right opinionation, despite the fact that left and right opinionation are negligibly or, more often, negatively related to each other. In contrast, both the F and E scales correlate relatively highly with right opinionation but negli-

gibly or negatively with left opinionation. Furthermore, the pattern of these latter correlations is very similar to that between P.E.C. and left and right opinionation, except that P.E.C. consistently correlates more negatively with left opinionation (but not much more), and consistently correlates to a lesser degree with total opinionation.

4. In every group the Dogmatism scale correlates more highly with total opinionation than with left or right opinionation. This is not the case with the F, E, and P.E.C. scales. In practically all instances these variables correlate less with total opinionation than with right opinionation, due to the "suppressing" effect of left opinionation.

5. To be noted, finally, is that while the Dogmatism scale correlates positively with both left and right opinionation it correlates consistently more highly with right than with left opinionation.

## B. DISCUSSION

In accord with Hypothesis B, dogmatism scores are found to be positively related to total opinionation scores. Also in accord with Hypothesis B, dogmatism is in every case positively related to both left and right opinionation. The latter finding is all the more interesting in view of the fact that left and right opinionation are negatively correlated with each other to a substantial degree in the New York Colleges group and in the three English groups.

The total opinionation scores are correlated with the F scores to about the same extent as with the D scores, and to a somewhat lesser extent with the E scores. If we had only the total opinionation scores to go by, one could easily be misled in interpreting these findings. It is, however, clear from the left and right opinionation correlations that the

origins of the correlations with total opinionation are different. They derive clearly from the fact both the F and E scales are relatively highly correlated with right opinionation, and are uncorrelated or even negatively correlated with left opinionation. These findings suggest, parallel to the distinction drawn between the Dogmatism and F scales, that the Opinionation scale represents primarily a measure of general intolerance, while the E scale represents primarily a measure of right intolerance.

Nevertheless, it cannot be ignored that dogmatism correlates in consistent fashion somewhat more highly with right than with left opinionation. This finding is in accord with the findings presented earlier on the small positive correlations between dogmatism and liberalism-conservatism. As already stated, these find-

ings will be considered in Section X.

One final point needs to be made here: from the correlations between total opinionation and E (Table 10) it is evident that while the two forms of intolerance tend to go together, the relationship is far from perfect; that is, a person can score low in ethnocentrism but be relatively high in opinionation, and vice versa. We thus have in the Opinionation scale an instrument, in addition to the Dogmatism scale, by means of which it is possible to isolate for further study relatively dogmatic low E scorers,<sup>14</sup> and by the same logic it is also possible to isolate for further study relatively undogmatic high E scorers.

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<sup>14</sup> In Hypothesis C we try to come to closer grips with this issue.

#### IX. HYPOTHESIS C: RELIGIOUS AND POLITICAL COMMITMENT IN RELATION TO DOGMATISM AND THE AUTHORITARIAN PERSONALITY

##### A. RESULTS

Hypothesis C is to the effect that persons having strong commitment to religious or political groups will manifest more dogmatism and opinionation than persons having lesser commitments. In the case of strong commitment to right-of-center groups, we expect relatively high scores on dogmatism and opinionation, and at the same time relatively high scores on the F scale and, possibly (but not necessarily), on the E scale. In the case of commitment to left-of-center groups, we also expect relatively high scores on dogmatism and opinionation, but relatively *low scores* on F and E.

##### 1. On Religious Commitment

Let us consider first the breakdown by religion of the M.S.U. I and the New York Colleges groups. We first assumed that the Catholic Church represents an

ideological position conservative in nature or, at least, generally to the right-of-center. We assumed further that the Catholic Church is generally speaking relatively effective, by virtue of its social organization, in demanding strict adherence to its dogma. In Table 11 are shown the mean scores on the Opinionation, Dogmatism, F and E scales for the M.S.U. I group broken down into Catholic, Protestant, and None (no religion) subgroups.<sup>15</sup> In Table 12 are shown comparable data for the New York Colleges group, broken down into Catholic, Protestant, Jewish, and "None" subgroups.

Consider first the data for the M.S.U. I subgroups, shown in Table 11. It is seen that on all four of the major variables—opinionation, dogmatism, F, and E—the

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<sup>15</sup> It will be recalled that Jews (and Negroes) were excluded from this study.

TABLE 11  
COMPARISONS AMONG VARIOUS RELIGIOUS GROUPS IN THE M.S.U. I GROUP ON  
OPINIONATION, DOGMATISM, F AND E

Group	N	Left Opinionation		Right Opinionation		Total Opinionation		Dogmatism		F Scale		Ethno-centrism	
		M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$
1. Catholics	42	58.43	11.82	94.71	12.89	153.14	12.21	191.10	27.07	109.79	20.75	34.31	11.14
2. Protestants	145	58.47	12.02	86.41	12.81	144.88	17.04	180.10	25.42	99.24	21.80	29.99	11.03
3. None	15	67.73	9.30	76.07	11.80	143.40	15.20	174.60	21.10	91.00	21.30	24.27	7.54
Comparisons	df	<i>t</i> <sup>a</sup>	<i>p</i>	<i>t</i>	<i>p</i>	<i>t</i>	<i>p</i>	<i>t</i>	<i>p</i>	<i>t</i>	<i>p</i>	<i>t</i>	<i>p</i>
1 vs. 2	185	—	N.S.	3.64	.01	3.47	.01	2.33	.01	2.84	.01	2.19	.05
1 vs. 3	55	3.00	.01	4.82	.01	1.94	.05	2.34	.01	2.77	.01	3.77	.01
2 vs. 3	158	3.46	.01	2.92	.01	—	N.S.	—	N.S.	—	N.S.	2.58	.01

<sup>a</sup> All *t* tests are one-tailed.

Catholic group is highest, the Protestant<sup>16</sup> group is intermediate and the "None" group is lowest.<sup>17</sup> On all four of these variables the Catholic group is significantly higher than the Protestant group, and significantly higher than the "None" group. The Protestant group is significantly higher than the "None" group only on the E variable.

Of further interest are the mean scores on left and right opinionation. It is clear that all three groups are more right-than left-oriented, as is indicated by the fact that the mean right-opinionation scores are higher than the mean left-opinionation scores. However, the "None" group is significantly more left-opinionated than the Catholic and

Protestant groups, the latter two groups not differing from each other in this respect. On right opinionation, the Catholic group scores highest, the Protestant group next highest, the "None" group lowest. Each of these means is significantly different from all others.

Despite these differences on left and right opinionation, the mean total opinionation scores for the Protestant and "None" groups are almost identical and both of these groups score significantly lower on this variable than does the Catholic group.

The findings for the M.S.U. I group are clearly in accord with Hypothesis C. However, the comparable findings for the several religious subgroups of the New York Colleges group seem less conclusive, as shown in Table 12.

1. The Catholic, Protestant, and Jewish groups are more right-opinionated than left-opinionated. The "None" group is considerably more left-opinionated than right-opinionated. These findings suggest that the "None" group is left-oriented. All the differences in means on left and right opinionation among the several groups, with the exception of that between the Catholics and Protestants, are significant beyond the 5 or 1 per cent level.

2. The groups do not differ signifi-

<sup>16</sup> Of the total group of 145 Protestants, 75 wrote in "Protestant" on the face sheet in response to the question on religion. The remainder wrote in Episcopalian or Presbyterian ( $N = 22$ ), Methodist ( $N = 16$ ), Congregational ( $N = 6$ ), Baptist ( $N = 9$ ), Lutheran ( $N = 10$ ), or some other denomination ( $N = 7$ ). Means and sigmas for D, O, F, and E were computed separately for the Protestant denominations. None of the differences was statistically significant. The mean D, O, F, and E scores for the Catholic group were found to be higher than for any one of these denominations considered separately.

<sup>17</sup> Socioeconomic status, as measured by a question on parents' income, was found to be unrelated to these variables. Thus, the differences found among the several religious groups cannot be attributed to differences in social status.

TABLE 12  
COMPARISONS AMONG VARIOUS RELIGIOUS GROUPS IN THE NEW YORK COLLEGES GROUP  
ON OPINIONATION, DOGMATISM, F AND E

Group	N	Left Opinionation		Right Opinionation		Total Opinionation		Dogmatism		F Scale		Ethno-centrism	
		M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$
1. Catholics	46	58.26	14.21	86.37	10.88	144.64	15.86	147.38	20.07	105.24	27.82	26.52	9.96
2. Protestants	24	56.71	15.08	88.84	18.05	145.55	22.31	138.34	12.21	95.80	24.21	25.00	8.10
3. Jews	131	70.18	15.82	76.31	16.00	146.59	17.07	139.53	24.48	91.73	22.23	20.32	7.47
4. None	6	94.35	16.78	61.01	18.46	155.36	14.85	147.20	30.58	93.60	20.21	18.67	5.73
Comparisons	df	t <sup>b</sup>	p	t	p	t	p	t	p	t	p	t	p
1 vs. 2	68	—	N.S.	—	N.S.	—	N.S.	—	N.S.	—	N.S.	—	N.S.
1 vs. 3	175	4.71	.01	3.04	.01	—	N.S.	1.58	.10	2.20	.05	3.83	.01
1 vs. 4	50	4.63	.01	2.80	.01	—	N.S.	—	N.S.	—	N.S.	2.62	.05
2 vs. 3	153	3.73	.01	2.97	.01	—	N.S.	—	N.S.	—	N.S.	2.57	.01
2 vs. 4	28	4.58	.01	3.04	.01	—	N.S.	—	N.S.	—	N.S.	2.04	.05
3 vs. 4	135	3.17	.01	1.84	.05	—	N.S.	—	N.S.	—	N.S.	—	N.S.

<sup>a</sup> Corrected by the Cochran-Cox approximation for significance of differences in means when the variances differ significantly (6).

<sup>b</sup> All *t* tests are one-tailed.

cantly from each other on total opinionation. However, the mean opinionation score for the "None" group ( $N = 6$ ) is seen to be higher than those for the remaining groups.

3. The Catholic and "None" groups score equally high on dogmatism, and both groups are higher on this variable than the Protestant and Jewish groups. The only difference which approaches significance (10 per cent level) is that between the Catholic and Jewish groups, the former being more dogmatic.

4. As was found with the M.S.U. I group (Table 11), the Catholic group scores highest on the F and E scales, followed in order by the Protestant, Jewish, and "None" groups. For the F scale, the difference between the Catholic and Jewish groups reaches the 5 per cent confidence level. For the E scale, Catholic and Protestant groups do not differ from each other, but both groups are significantly higher on E than the Jewish<sup>18</sup> and "None" groups.

5. It is interesting to note too that the standard deviations on E decrease

along with decreases in mean E scores, the Catholic group having the highest standard deviation, the "None" group the lowest. The difference between these two groups is statistically significant.

6. Quite aside from the question of statistical significance, the over-all trend shown in Table 12 is that the Catholic group is relatively high on dogmatism, F, and E, while the "None" group is relatively high on opinionation and dogmatism, but relatively low on F and E.

## 2. On Political Commitment

To test Hypothesis C further we broke down the English Colleges I sample into the following political groups: Conservatives, Liberals, Attlee Laborites, Bevan Laborites, and Communists. We assumed that of these political groups the Communist Party group was left-of-center and at the same time most effective in demanding adherence to its political ideology. Like the Catholic group it is expected, in accord with Hypothesis C, that the Communist group would also score relatively high in dogmatism and opinionation. Unlike the Catholic group however the Communist group is expected to score relatively low on the F and E scales.

<sup>18</sup> It will be recalled that the 10-item E scale employed in the New York study did not contain any items about Jews.

TABLE 13  
COMPARISONS AMONG VARIOUS POLITICAL GROUPS IN ENGLAND ON OPINIONATION,  
DOGMATISM, F AND E

Group	N	Left Opinionation		Right Opinionation		Total Opinionation		Dogmatism		F Scale		Ethno-centrism <sup>a</sup>	
		M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$	M	$\sigma$
1. Conservatives	54	56.15	13.42	83.04	18.77	130.20	17.55	258.70	40.70	115.51	25.03	20.04	8.08
2. Liberals	22	68.67	11.54	68.15	13.04	136.85	13.38	242.01	20.21	08.40	13.08	24.75	7.80
3. Attleites	27	76.78	12.64	50.15	11.76	135.94	18.54	252.60	36.55	101.70	21.44	22.74	9.27
4. Bevanites	19 <sup>b</sup>	06.53	19.42	44.52	10.00	141.05	17.34	240.78	37.03	00.37	25.33	23.50	0.42
5. Communists	13 <sup>b</sup>	107.86	18.12	46.62	7.34	154.48	18.35	201.62	32.58	82.93	20.26	16.50	4.23
Comparisons	df	$\chi^2$	p	t	p	t	p	t	p	t	p	t	p
1 vs. 5	65	0.32	.01 <sup>d</sup>	10.00	.01 <sup>d</sup>	2.66	.01	—	N.S.	4.80	.01	7.11	.01 <sup>d</sup>
2 vs. 5	33	0.75	.01 <sup>d</sup>	5.81	.01 <sup>d</sup>	2.01	.01	1.65	.10	2.34	.05	3.33	.01 <sup>d</sup>
3 vs. 5	38	5.37	.01	4.00	.01 <sup>d</sup>	2.80	.01	—	N.S.	2.02	.01	2.57	.05 <sup>d</sup>
4 vs. 5	30	—	N.S.	—	N.S.	2.01	.05	—	N.S.	—	N.S.	2.36	.05 <sup>d</sup>

<sup>a</sup> The N on which the mean E scores are based are 51, 16, 23, 14 and 10 for groups 1, 2, 3, 4, and 5 respectively. Jewish Ss were excluded from these computations.

<sup>b</sup> The N for the English Colleges I is 137. Seven of these gave "other" political affiliations (e.g., Anarchist, Trotskyite, ex-Communist, Celtic Alliance). Five of the 13 Communists were from English Colleges II, and the full 66-item Dogmatism scale was scored (Form D) for these five Ss for purposes of the present analysis.

<sup>c</sup> All t tests are one-tailed.

<sup>d</sup> Corrected by the Cochran-Cox approximation for significance of differences in means when the variances differ significantly (6).

Table 13 shows the mean scores, for the five political groups for the variables under consideration. A study of these data reveals the following:

1. The Communists are found to score highest of all the groups on total opinionation and dogmatism, but lowest on F and E. On total opinionation the Communists are significantly higher than each of the other groups (5 or 1 per cent level). On dogmatism, the Communists are higher than the Liberals, the difference being significant between the 5 and 10 per cent level. On F and E, however, the Communists are lower than each of the remaining political groups and, in general, significantly so (5 or 1 per cent level).

2. The Communists are higher on left opinionation and lower on right opinionation than each of the remaining groups. All differences are significant except those between the Bevanites and Communists. Conversely, the Conservatives show exactly the opposite trend. They are lowest on left opinionation and highest on right opinionation. The five political groups, arranged in order from right to left, follow in clear-cut ascending order on left opinionation and descend-

ing order on right opinionation.

3. Despite these findings for left and right opinionation it is interesting to note that on total opinionation the five groups do not follow any particular ascending or descending order in relation to the right-left continuum. When left and right opinionation are combined to yield a total opinionation score the Communists are seen to be most opinionated, followed in order by the Bevanites, Conservatives, Liberals and Attleites.

4. As is the case with total opinionation, the mean dogmatism scores, too, do not seem to follow any discernible pattern which can be related to leftness-rightness. The Communists are the most dogmatic and they are followed in order by the Conservatives, Attleites, Bevanites, and Liberals.

5. In contrast to points 3 and 4 above, a fairly clear-cut relationship is seen between leftness-rightness and scores on the F and E scales. The Conservatives score highest on F and E and these means generally decrease, proceeding from right to left.

6. Finally, attention is drawn to the fact that while the Communists are highest on dogmatism, their mean score



(261.62) is only slightly higher than that for the Conservatives (258.76). The difference in means between the Conservatives and Liberals is significant at the 5 per cent level ( $t = 1.70$ ).

#### B. DISCUSSION

It is clear that the Catholic and Communist groups diverge sharply from each other with respect to their performance on the California F and E scales. The Catholic group is highest of all the religious groups on both F and E; the Communist group is lowest of all political groups on both F and E.<sup>19</sup>

If we had only the F and E scale means to go on, we would have to conclude that the Catholic groups are relatively high in authoritarianism and prejudice, while the Communist group is relatively low. We would also be forced to conclude that the Conservatives are most and the Communists are least authoritarian and intolerant.

Clearly in contradiction with the preceding are the findings with respect to dogmatism and opinionation. Even though the Catholic and Communist groups score at opposite poles on F and E, they score in the same direction, in general, on dogmatism and opinionation. And while the English Conservatives and Communists are also at opposite poles on F and E, no relation is apparent between leftness-rightness and dogmatism or opinionation. Indeed, both Communists and Conservatives score relatively high on dogmatism.

These findings indicate once again that the F and E scales seem to be systemati-

cally related to leftness-rightness and that the Dogmatism and Opinionation scales are relatively more independent of this dimension.

*Concerning the Catholic groups.* While the New York Catholic group does not differ from the remaining New York groups on opinionation, it is clearly highest on the F and E scales, and it is also highest on the Dogmatism scale, though the difference is significant only between the 5 and 10 per cent levels. Thus, the trend of results for these data is on the whole in the same direction as the M.S.U. I data, but is less conclusive as far as Hypothesis C is concerned. At this point, we can only speculate about the reason why the New York results are not as clear-cut as those found for the M.S.U. I group. One reason which comes readily to mind is that students attending New York colleges are less representative of college students in general. It is generally believed that New York college students are more liberal than college students found elsewhere. This is supported by our data which show, for example, that the New York Catholics are lower than the M.S.U. I Catholics on right opinionation, total opinionation, F, and E.<sup>20</sup>

It is worth mentioning too that while the Catholics are generally higher on the major variables under consideration, the ranges of individual differences for Catholics in both groups are about as great as they are for the other religious groups. Thus, it is seen that other unanalyzed variables, in addition to group pressures toward commitment, are oper-

<sup>19</sup> We hesitate to make formal, direct comparisons between Communist and Catholic groups because the former was obtained in England, the latter in America. Nevertheless, it is worth pointing out that a direct comparison of the mean F and E scores for Catholic and Communist groups, shown in Tables 11, 12, and 13, reveal marked differences between them.

<sup>20</sup> Six of the ten E-scale items employed in the two studies were identical (non-Jewish items); four were not. Thus, the mean E scores are only roughly comparable. The Dogmatism scale employed in the two groups was different in length and wording and thus direct comparisons are not justified.

ating to produce the results found.

*Concerning the Communist group.* The English Communists are lower than the Socialists, Liberals, and Conservatives on the F<sup>21</sup> and E scales. These findings are as predicted. It is especially interesting to note that the variability of E scores and right opinionation scores for the Communists are considerably lower than those found for the remaining groups. These are consistent with what is known about the content of Communist ideology.

However, while the Communists are generally the most tolerant toward ethnic and racial groups, as determined by scores on the E scale, they are most intolerant toward those they disagree with, as determined by scores on the Opinionation scale. Thus, we observe a discrepancy between ideological structure and content. If we relied solely on the E scale as a measure of prejudice we could conclude only that the Communists are the most tolerant of all the groups tested. But with the information gained from the Opinionation scale a clearer, more complete, and somewhat different picture emerges.

It may strike one as strange, in view of the positive correlations reported earlier among the four major variables under consideration, that the Communists should score highest on dogmatism and opinionation, and lowest on F and E.

<sup>21</sup> Eysenck reports that the mean F scores for the Communists in England are higher than for other groups (7). We are dubious of this as well as other findings by Eysenck. For a justification of this position see Rokeach and Hanley (22) and Christie (5).

These findings become more understandable when it is pointed out that such opposing trends are quite possible even though all the correlations are positive. Even more convincing, perhaps, is the fact that for the Communists *all* inter-correlations among these variables are *positive*. The product-moment correlations between D and O ( $N = 13$ ), D and F ( $N = 13$ ), D and E ( $N = 10$ ), and O and F ( $N = 13$ ), O and E ( $N = 10$ ), and F and E ( $N = 10$ ) are .66, .56, .54, .33, .25, and .46, respectively. The correlations involving E are especially interesting in view of the extremely low E mean and low variability for the Communists.

A final comment about the Communists is the following: we have already had occasion to mention that on all variables the range of individual differences for the Catholic groups obtained in America is generally as great as it is for the other religious groups. A similar point may well be made for the Communist group obtained in England. Except for the E scale and the Right-Opinionation subscale where the variabilities are very low (probably due to the fact that high scores on these variables are incompatible with the content of Marxist ideology), the variability of the Communists on dogmatism, left opinionation, total opinionation and F are about as great as those found for the other political groups. Thus, it is necessary to emphasize that the differences we have considered are group differences and that other factors are also at work in producing differences among individual Communists.

## X. GENERAL DISCUSSION

Guided by our theoretical analysis of the structure, formal content, and function of dogmatic thinking and believing

we have constructed two measuring devices—the Dogmatism and Opinionation scales. The former is by far the more

broadly conceived of the two. It represents, by definition, a measure of openness-closedness of belief-disbelief systems, general authoritarianism, and general intolerance. The Opinionation scale, on the other hand, was specifically designed to measure but one major facet of our conceptual definition of dogmatism, namely, degree of tolerance or intolerance toward those who agree or disagree with one's belief-disbelief system.

To what extent do these scales measure what they purport to measure? It was to answer this question that the three hypotheses of this study were set up. Actually, each of the three hypotheses addresses itself to different facets of our conceptual representation of dogmatism. Also, each of the three hypotheses addresses itself to the question of determining to what extent the present formulations are compatible with the theory, the measuring instruments, and the findings by the authors of *The Authoritarian Personality* (1). Thus, in testing all three hypotheses the major scales of the California researchers are pitted against those employed in the present research. In this way we hoped to determine empirically the respective properties of the two sets of scales and with this the scope and validity of the theoretical formulations underlying both sets.

The evidence presented comes from a number of samples tested in three more or less distinct social climates: the traditionally conservative Midwest, the more liberal atmosphere prevailing in colleges in Metropolitan New York, and the yet more liberal atmosphere prevailing in England. We have been struck by the consistency of the findings despite differences in social climates, and despite fluctuations in the reliability of the measuring instruments employed.

The results obtained to test Hypothesis A show that the Dogmatism scale measures authori-

tarianism to the same extent as does the F scale. But there is a difference: The Dogmatism scale seems to measure authoritarianism all along and more or less independent of the left-to-right continuum; the F scale seems to measure essentially what its original name implies—fascistic authoritarianism—and not what is implied by its more generic name—the Authoritarianism scale (24).

The data bearing on Hypothesis B yield information on another facet of dogmatism. The Dogmatism scale correlates positively with the Opinionation scale, and positively with the Left- and Right-Opinionation subscales. Regardless of whether the intolerance is directed to one's political right or left, it is positively associated with dogmatism. This is what is demanded on theoretical grounds. At the same time, the F and E scales also correlate positively with total opinionation. But it is clear that these results are obtained by virtue of the fact that the F and E scales correlate only with right opinionation. Persons opinionated to varying degrees in a leftward direction are generally indistinguishable from each other on authoritarianism, as measured by the F scale. In some groups, in fact, it would even appear that the more the opinionation is in a leftward direction the less the F authoritarianism.

In testing Hypothesis C we employed for the first time external criteria—known religious and political groups. We assumed that the field forces operating on individual Catholics and Communists differ in at least one important respect from those operating on adherents of the other religious and political groups, that is, in the pressures exerted by the group toward commitment. Thus, divergent as these two groups are in their political and religious outlook, members of both groups should manifest generally greater dogmatism and opinionation. However, it was also anticipated, in line with our analysis, that Catholic and Communist groups would score at opposite poles on the F and E scales. Thus, the testing of Hypothesis C involves considerably more than an attempt to ascertain the effects of commitment on dogmatism and opinionation. It further makes it possible to test in a crucial way the contrasting properties of the Dogmatism and Opinionation scales, as against the F and E scales.

As expected, the Catholic groups turn out to be highest of all groups on the F and E scales; the Communists (and the New York "Nones") lowest on the F and E scales. Nevertheless, both groups generally score high on the Dogmatism and Opinionation scales.

That the group differences turn out as they do lends support to the hypothesis that differences in social organization and the accompanying differences in amount of pressure exerted upon group members play an important role

in determining dogmatism and opinionation. That Communists and Conservatives are both relatively high in dogmatism and that there are, furthermore, wide individual differences within all of the groups considered indicates that other factors—personal and social—also play a role. All we can conclude from the present data is that group pressures toward commitment seem to be one determinant of dogmatism and opinionation. There are, no doubt, other determinants, both personal and social, which will have to be studied further. It seems clear, too, from the within- and between-group data we have presented that personal and social determinants can not readily be subsumed under each other.

We turn now to consider some general theoretical and methodological issues which merit further discussion.

*Dogmatism as a cognitive or emotional variable.* It may be asked whether dogmatism, as employed in the present research, is a cognitive or emotional variable. Or put another way, have we not confused the cognitive and the emotional in inserting items involving structure, formal content, and function into the Dogmatism scale? The answer to this question, it seems to us, depends upon one's theoretical outlook. For our part, we regard the distinction between what is cognitive and what is emotional as a convenient one but by no means a necessary one. It is possible to conceive of all emotional states as having their representation in the cognitive belief-disbelief system (and vice versa). Thus, *authoritarianism* as a personality state can also be conceived as referring to *cognitive beliefs* in and about authority; a *fear* of aloneness and isolation can be represented as a *cognitive belief* that "Man on his own is a helpless and miserable creature" (Item 43 of the Dogmatism scale); *anxiety* about the future can be transformed into the *cognitive belief* that "It is only natural for a person to be fearful of the future" (Item 47). In precisely the same way such emotional states as self-hate, a need for self-aggrandizement, and a paranoid outlook on life can all be seen as having their representation in the cognitive structure in the form of some specific belief or disbelief.

Seen in this way the distinction between what is cognitive and what is emotional is all but erased. The strategy of reducing the latter to the former makes our concept of the belief-disbelief system a far more dynamic one than most present-day conceptions of cognitive structure. And in closing the gap between what is emotional and what is cognitive a way is paved for the more objective study of complex, value-laden social phenomena which can be more easily attacked by examining a person's cognitions<sup>22</sup> than his emotions. For all the things a person *feels* (and *wants*) must surely be repre-

sented by what he *believes* and *knows* about the world he lives in. In line with these ideas, we are presently entertaining the notion that a full description of a person's belief-disbelief system is also a full description of his personality. Thus, the task for future research is seen to be the study of the conditions which lead to the formation of belief-disbelief systems, their growth, and their modification.

*The relation between ideological content and ideological structure.* The weight of the evidence presented is that dogmatism, with all that it involves, cuts across specific ideological orientations along the left-to-right continuum. From this it might appear that dogmatism, whether found on the right, in the center, or on the left is genotypically the same, differing only in superficialities. However, several lines of evidence seem to suggest that dogmatism has a somewhat greater affinity to right-oriented than to left-oriented ideologies. The correlations between dogmatism and conservatism (Table 9), and between opinionation and conservatism (Table 10), while small or negligible, are consistently positive; the correlations between dogmatism and right opinionation are consistently larger than those with left opinionation (Table 10). The correlations between dogmatism and ethnocentrism (Table 7) and between opinionation and ethnocentrism (Table 10) are even higher, ranging from .31 to .53 in the former case, and from .20 to .50 in the latter case.

One possible explanation is the following: The results found may be a function of the fact that the samples tested in the United States and England are predominantly right-oriented rather than left-oriented. There would thus be greater *heterogeneity* in the degree to which there is acceptance of right-oriented ideology and greater *homogeneity* in the degree to which there is rejection of left-oriented ideology.

The available evidence seems to rule out this possibility. All four of the American samples and the English-worker sample do indeed show higher mean scores and greater variability on right opinionation than on left opinionation (Table 5). However, this is clearly not the case for the two English college groups, which are more left- than right-opinionated and which,

<sup>22</sup> It must be pointed out, however, that some of the dogmatism items are not purely cognitive. In Form E, the final one, eight out of 40 items (Items 29, 39, 46, 49, 50, 51, 57, 59) have to do with feelings rather than with beliefs as such. However, it will be noted that most of these items nevertheless make some reference to a person's cognitive behavior, e.g., repeating oneself, or not listening in a discussion, how one feels toward people one disagrees with, etc.

furthermore, are more variable on left opinionation than on right opinionation. Despite such differences all sets of data show that both dogmatism and opinionation are positively correlated, to a small but consistent extent, with right-oriented beliefs or ideology.

A second possibility comes to mind. Perhaps political conservatism and especially ethnocentrism is intrinsically more antidemocratic or authoritarian or antihumanitarian in ideological content than liberal and antiethnocentric ideology. Hence dogmatic ideological structures may be psychologically more reconcilable, may be more easily "attachable" to ideologies antidemocratic rather than democratic in content. This possibility becomes all the more compelling when we consider the extreme form which conservatism has taken—fascism. Dogmatic ideological structure and authoritarian, antihumanitarian content complement each other and thus do not engender psychological conflict. Whatever the motivations may be—social and personal—which may lead one to embrace antihumanitarian ideologies may also lead one to develop what we have called a dogmatic belief-disbelief system.

On the other hand it is probably more conflictful psychologically to embrace a liberal, humanitarian cause in a dogmatic (closed, authoritarian, intolerant) manner. For here there is a sharp discrepancy between content and structure. The writer has observed, for example, that it is precisely this discrepancy between ideological content and structure which has often led to disillusionment with causes on the left. Come to think of it, we hear much more frequently of disillusionment with left ideology than with right ideology.

The preceding suggests a major direction which future research in this area should take, namely, a systematic study not only of similarities among persons adhering to various totalitarian ideologies on the right, in the center, and on the left, but also a systematic study of differences among adherents to totalitarian ideologies depending upon whether such ideologies are humanitarian or antihumanitarian in content.

*Dogmatism and extremeness of beliefs.* To social psychologist and layman alike, dogmatism is often seen to be synonymous with, or a function of, extremeness or intensity of political or religious views (10, 26). We are led to reject this view for two reasons. First, we have no evidence that extremeness as such is associated with dogmatism. As has already been indicated dogmatism is at best only slightly related to liberalism-conservatism. Second, the contention that dogmatism may be a function solely of extremeness of beliefs commits one in advance to the theoretical position that extremely held beliefs are necessarily indicative of *dogmatic conviction*, and

rules out in advance the possibility that some extremely held beliefs may also be a function of *intellectual conviction*, that is, they may conceivably be cognitively correct. Elsewhere, Rokeach and Eglash (20) have addressed themselves more specifically to this issue. The position taken there is that there are compelling theoretical reasons for drawing a distinction between strong beliefs rooted in dogmatic conviction and strong beliefs rooted in intellectual conviction. On the basis of such a distinction, it may be added, a measure of intellectual conviction was constructed in which a number of statements give a clearly "wrong" reason for holding to the "right" belief. Lack of intellectual conviction, thus determined, was found to be directly related to measures of dogmatic conviction.

*Dogmatism distinguished from rigidity.* Another theoretical distinction which should be kept in mind is that between dogmatism and rigidity (19). The former construct refers to closed systems of sets or beliefs; the latter to single sets or beliefs which resist change. The difference between dogmatic and rigid thinking can perhaps be more clearly indicated by pointing to a recent experiment by Rokeach, McGowney, and Denny (23). Subjects are presented with a problem in which (a) three separate sets must first be overcome and (b) then integrated in order to reach a solution. Subjects scoring high on a rigidity scale are significantly slower than those scoring low in overcoming the three sets. On the other hand, subjects scoring high on the Dogmatism scale are significantly slower than those scoring low in time taken to integrate the new sets after the older sets had been overcome. These findings indicate not only that the distinction drawn between dogmatism and rigidity is a meaningful one but also that personality scales designed to measure dogmatism and rigidity are tapping different dimensions.

*Dogmatism and anxiety.* A comment on the motivational function served by dogmatism: In Section II we have made certain assumptions, some of which were reflected in the Dogmatism scale, regarding the motivational conditions which lead to dogmatism. In a factorial study by Rokeach and Fruchter (21) evidence is presented to the effect that tests designed to measure dogmatism and anxiety, along with other tests designed to measure self-rejection and paranoid tendencies, emerged together as part of a general anxiety factor. It may be stated further, for the sake of completeness, that in all samples tested the relation between dogmatism and anxiety is always positive.<sup>23</sup>

<sup>23</sup> For the seven samples of the present study the product-moment correlations between dogmatism and anxiety are, respectively, .44, .58,

*Some methodological considerations.* There are certain methodological problems to which attention should be drawn. It will be noted that the procedures employed in constructing the

.64, .57, .52, .47, and .36. These findings suggest that those religious and political groups which are the most dogmatic should also turn out to be the most anxious. To find out whether this is the case, anxiety means were calculated for the several religious groups in the Michigan State University and New York Colleges samples; and for the several political groups in the English Colleges I sample.

For the Michigan State University Catholics, Protestants and "Nones," the mean anxiety scores are 83.07, 83.55, and 71.87, respectively ( $SD = 19.15, 25.17, \text{ and } 18.91$ , respectively). The differences between Catholics and "Nones," and between Protestants and "Nones" are significant at the .05 level.

For the New York Catholics, Protestants, Jews, and "Nones," the mean anxiety scores are 85.02, 71.54, 79.89, and 69.50, respectively ( $SD = 28.64, 24.73, 25.44, \text{ and } 9.78$  respectively). Significant at the .05 level are the differences between Catholics and Protestants, Catholics and "Nones," and between Jews and "Nones."

For the English Conservatives, Liberals, Attleceites, Bevanites, and Communists the mean anxiety scores are 81.02, 81.27, 80.19, 90.37, and 73.46, respectively. ( $SD = 25.68, 20.35, 24.22, 21.43, \text{ and } 21.97$  respectively.) The difference between Bevanites and Communists is significant at the .05 level.

It is clear that the most dogmatic groups are not necessarily the most anxious. As can be seen, the "None" groups and the Communists score lower on anxiety than do any of the other groups.

Further research along these lines should prove rewarding.

Dogmatism and Opinionation scales are very similar to those employed in the California research. For one thing all the items in the D and O scales, like those in the California scales, are worded in the same direction—agreement indicating highness on the variables in question. Thus, it is likely that response set (3) was operating to at least some extent in determining individual scores. It is worth pointing out, however, that in our preliminary research we used dogmatism items worded in the opposite direction—that is, disagreement indicating highness. Such items had to be discarded because they consistently failed to discriminate low from high dogmatic groups. Apparently, the subjects could "see through" such items relatively easily.

It should be pointed out too, in view of the fact that the Dogmatism and Opinionation scales have been pitted against the F and E scales in the present research, that it was actually advantageous to employ items all of which were worded negatively. The fact that systematic differences have been found between the two sets of scales despite their being equated for response set serves to strengthen rather than weaken the conclusions reached regarding such differences.

Another methodological problem has to do with the Opinionation scale. A major principle of test construction is that double-barreled items should be avoided. Yet the concept of Opinionation, by its very nature, necessarily involves the presentation of double-barreled statements. That these double-barreled statements have not hampered the goals of the present research is indicated by the reliabilities found for the total Opinionated scale and the even higher reliabilities found for the Left and Right subscales, and furthermore, by the manner in which these variables are differentially related to the other variables under consideration.

## XI. SUMMARY AND CONCLUSIONS

The present research rests, first, on the assumption that the conceptualizations and measuring devices reported by Adorno *et al.* (1) have to do primarily with right, rather than with general, authoritarianism and intolerance. Second, the present research rests on an alternative set of theoretical formulations regarding the nature of political and religious dogmatism. These formulations are designed to deal with and measure *gen-*

*eral* authoritarianism and *general* intolerance, regardless of specific ideological content.

We have presented herein a theoretical analysis of the cognitive structure, formal content, and function served by dogmatic thinking and believing. Guided by this analysis two scales were constructed: the Dogmatism and Opinionation scales. The former scale represents, by definition, a measure of (a) openness-closedness of



cognitive systems, (b) general authoritarianism, and (c) general intolerance. The Opinionation scale was designed to measure only *c* above, namely, the extent to which there is intolerance or qualified tolerance toward others according to whether others disagree or agree with our own beliefs. Furthermore, the Opinionation scale is so constructed so that it is possible to obtain measures of left and right opinionation as well as total opinionation.

The subjects were students attending universities in Michigan, New York, and England. Also tested was a group of automobile workers in England. The corrected reliabilities of successive editions of the Dogmatism scale ranged from .70 to .91; the corrected reliabilities of successive editions of the Opinionation scale ranged from .67 to .75.

To determine the validity of our conceptual representation of dogmatism and the operational measurement thereof by means of the Dogmatism and Opinionation scales three major hypotheses were tested. These three hypotheses were designed (a) to test different facets of our conceptual representation of the dogmatism, and (b) to pit systematically the present formulations and scales against those presented by Adorno *et al.* (1), in order to determine the differential properties of the two sets.

#### *Hypothesis A*

This is to the effect that the Dogmatism scale represents a measure of *general* authoritarianism while, in contrast, the F scale measures *right* authoritarianism.

1. We find first that the Dogmatism (D) scale correlates relatively highly with the F scale ( $r = .54$  to  $.77$ ). These correlations are about as high as those generally reported between F and E. The conclusion which may be drawn thus far

is that both D and F represent equally good measures of authoritarianism.

2. But the Dogmatism scale seems to differ from the F scale in certain respects. The correlations between D and E are consistently smaller than the correlations between F and E. Even when ethnocentrism is held constant, by the method of partial correlation, the correlations between D and F are reduced but slightly. From these findings it may be concluded that the Dogmatism scale measures individual differences in authoritarianism independent of highness or lowness in ethnic attitudes.

3. The Dogmatism scale correlates negligibly with liberalism-conservatism, and in every group sampled these correlations are considerably smaller than those between the F scale and liberalism-conservatism. These findings, along with those mentioned above, suggest that dogmatism comes closer to measuring general authoritarianism than does the F scale. They indicate too that the phenomenon of dogmatism has been found with approximately equal frequency along all positions of the left-to-right continuum.

4. Further analysis of each of the individual items of the F scale reveals that approximately one-third of the F items measure right authoritarianism, another third general authoritarianism, and the remaining third something in between right and general authoritarianism. The net effect is a scale biased in the direction of measuring primarily right authoritarianism.

#### *Hypothesis B*

This is to the effect that dogmatism, as conceived and measured, is related both to left-of-center and right-of-center forms of intolerance (as measured by the Opinionation scale) while, in contrast,

the F and E scales are conceived and constructed in such a way that they tap primarily right-of-center forms of intolerance.

1. In all groups dogmatism correlates positively with both left and right opinionation despite the fact that left and right opinionation are negligibly or, more often, negatively related to each other. In contrast, both the F and E scales correlate relatively highly with right opinionation but negligibly or negatively with left opinionation.

2. In every group the Dogmatism scale correlates more highly with total opinionation than with left or right opinionation. This is not so with the F, E, and P.E.C. scales. In almost all instances these latter three variables correlate *less* with total opinionation than with right opinionation, due to the generally negative correlations between each of these three variables and left opinionation.

#### *Hypothesis C*

This hypothesis is to the effect that the existence of strong group pressures to

commitment (e.g. the Communist Party, the Catholic Church) will lead to greater dogmatism and opinionation, regardless of whether the commitment is oriented to left- or right-of-center ideologies. In contrast, it is hypothesized that high F- and E-scale scores will be manifest only in the case of right-oriented commitments.

1. Catholic and Communist groups are found to diverge sharply from each other with respect to their performance on the California F and E scales. The Catholic group is highest of all religious groups on both F and E; the Communist group is lowest of all political groups on both F and E.

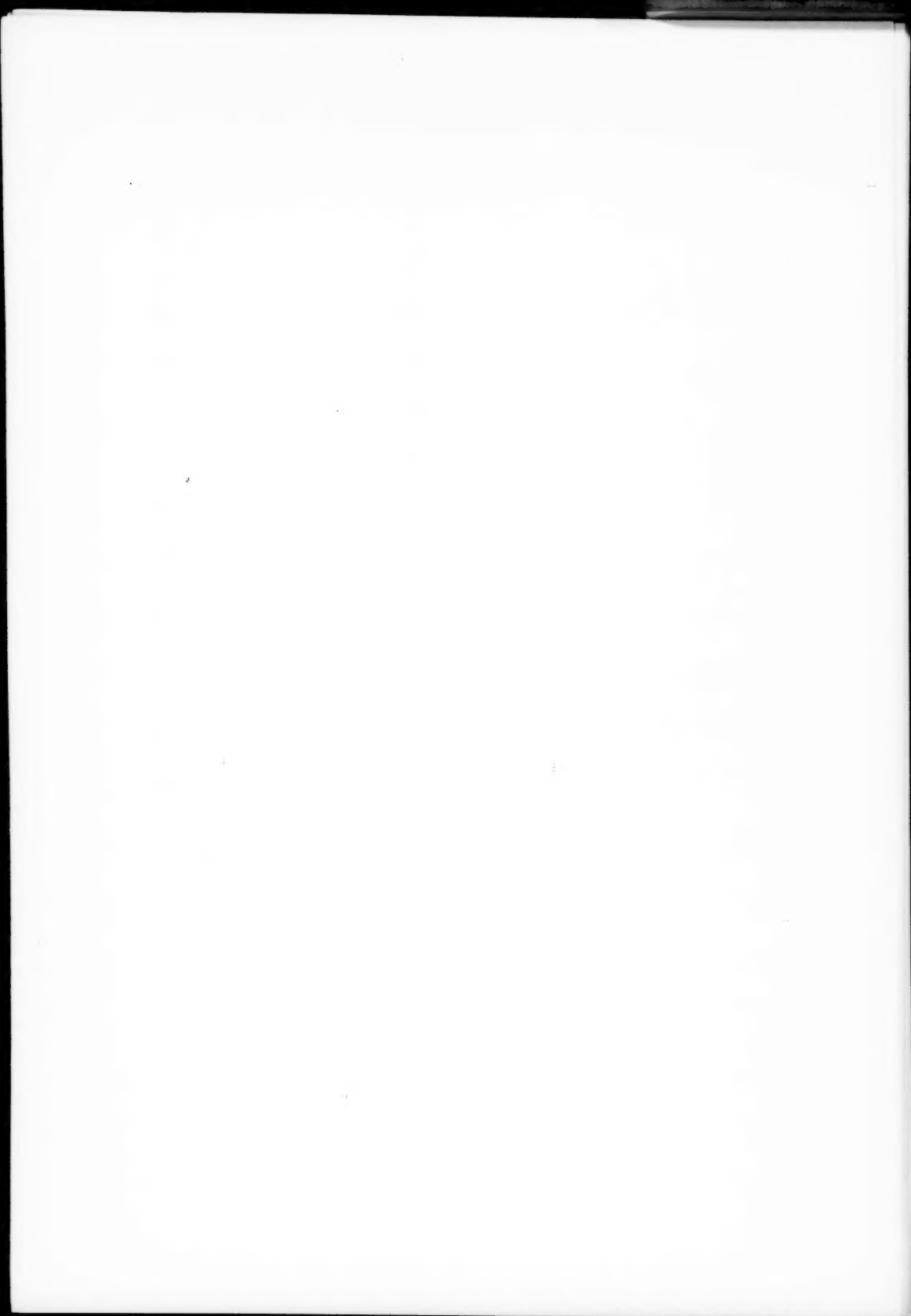
2. Even though the Catholic and Communist groups score at opposite poles on F and E, these groups generally score highest on dogmatism and opinionation.

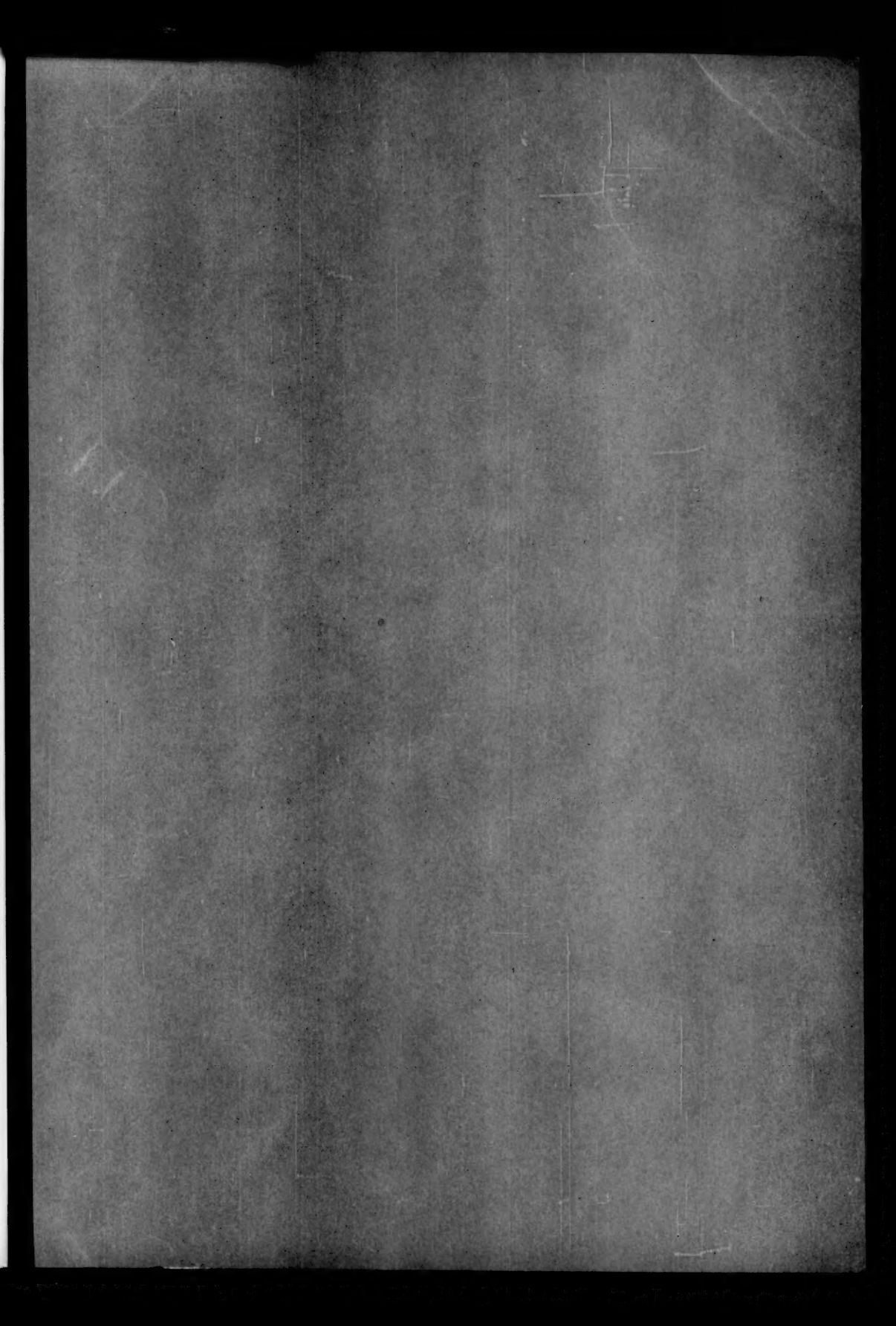
These findings are in accord with Hypothesis C and indicate that while the F and E scales measure right authoritarianism and intolerance, the Dogmatism and Opinionation scales measure general authoritarianism and intolerance.

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